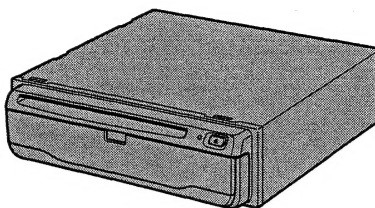


**Pioneer** *sound.vision.soul*

# Service Manual

AVIC-90DVD/UC



ORDER NO.  
**CRT2890**

DVD NAVIGATION UNIT

# AVIC-90DVD

## AVIC-9DVDII EW



UC  
**COMPACT  
disc**  
DIGITAL AUDIO

- This service manual should be used together with the following manual(s):

Model No.	Order No.	Mech. Module	Remarks
CX-954	CRT2670	MS2	DVD Mech. Module:Circuit Description, Mech.Description, Disassembly

- Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

- This product has the unit part numbers as below.

Unit Part No.	Description
CPN1803	Main Assy (AVIC-90DVD/UC)
CPN1801	Main Assy (AVIC-9DVDII/EW)

\*) The unit part numbers listed above are not for the service components.

- For your inspection, the following extension cords are supplied. Use them if necessary.

Part to use	Part No.
Main PCB (CN3251) <--> DVD Core Unit V (CN1701)	GGD1284
Main PCB (CN3254) <--> CC Unit (CN302)	GGD1264
Main PCB (CN3901) <--> Interface PCB (CN5004)	GGD1171
Main PCB (CN552) <--> GPS Unit (CN461)	GGD1265
CC Unit (CN2) <--> DVD Core Unit V (CN1401)	GGD1268



For details, refer to "Important symbols for good services".

**PIONEER CORPORATION** 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan  
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## 1. SAFETY INFORMATION

### ● AVIC-90DVD/UC

#### CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

#### WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.  
Health & Safety Code Section 25249.6 - Proposition 65

### ● AVIC-9DVDII/EW

#### **CAUTION**

Danger of explosion if battery is incorrectly replaced.  
Replaced only with the same or equivalent type recommended by the manufacture.  
Discard used batteries according to the manufacture's instructions.

#### 1. Safety Precautions for those who Service this Unit.

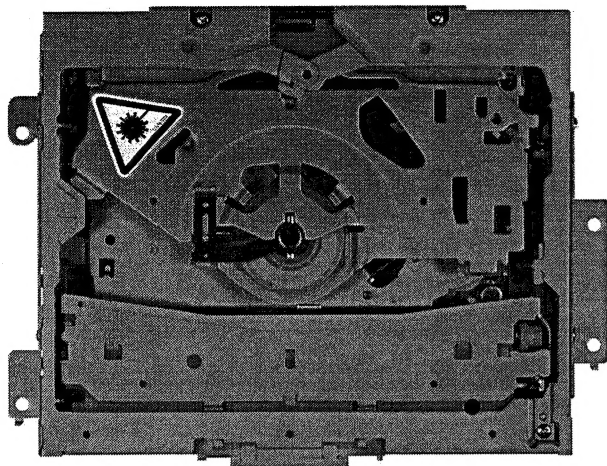
- Follow the adjustment steps (see pages 129 through 149) in the service manual when servicing this unit. When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.

#### Caution:

1. During repair or tests, minimum distance of 13cm from the focus lens must be kept.
2. During repair or tests, do not view laser beam for 10 seconds or longer.



**2. The triangular label is attached to the mechanism unit frame.**

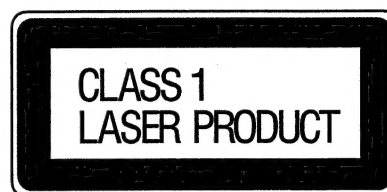


**CAUTION**

This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.

The following caution label appears on your unit.

Location: on the bottom of the unit



En

On the bottom of the player.

<b>CAUTION</b>	: VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. : AVOID EXPOSURE TO BEAM.
<b>VORSICHT</b>	: SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN : ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN!
<b>ADVARSEL</b>	: SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING : UNDGÅ UDSÆTTELSE FOR STRÅLING.
<b>VARNING</b>	: SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA : DEL ÄR ÖPPNAD BETRÄKTA EJ STRÅLEN.
<b>VARO!</b>	: AVATTAESSA ALTISTUT NÄKYVÄ JA NÄKYMÄTTÖMÄLLE : LASERSATEIL YLL.E. ÄLÄ KATSO SÄTEESIN.

VRW1899

**WARNING!**

The AEL (accessible emission level) of the laser power output is less than CLASS 1 but the laser component is capable of emitting radiation exceeding the limit for CLASS 1.

A specially instructed person should do servicing operation of the apparatus.

**Laser diode characteristics**

Wave length:

DVD:640~660nm

CD:770~810nm

Maximum output:2.44mw(Emitting period :9sec.)

DVD:743mw(Emitting period : unlimited)

**Additionla Laser Caution**

Transistors Q1104 and Q1108 in PCB drive the laser diodes for DVD and CD respectively. When Q1104 or Q1108 is shorted between their terminals, the laser diodes for DVD or CD will radiate beam. If the top cover is removed with no disc loaded while such short-circuit is continued, the naked eyes may be exposed to the laser beam.

## [ Important symbols for good services ]

In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely. When you find the procedures bearing any of the symbols, be sure to fulfill them:

### 1. Product safety



You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

### 2. Adjustments



To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

### 3. Cleaning



For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

### 4. Shipping mode and shipping screws



To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

### 5. Lubricants, glues, and replacement parts



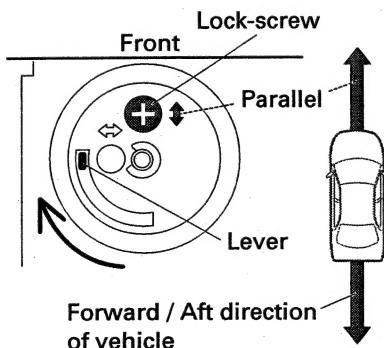
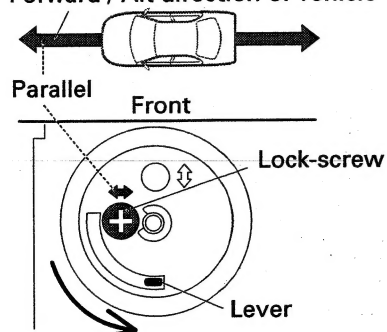
Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount. For replacement parts or tools, the prescribed ones should be used.

## ● DVD Player Service Precautions



1. Never adjust the LD VR in the pickup unit to protect the pickup from electrical damages.
  2. For pickup unit(service)(CXX1530) handling, please refer to "Disassembly"(see page 173).  
During replacement, handling precautions shall be taken to prevent an electrostatic discharge(set the short switch of the pickup unit to the SHORT side).
  3. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.
  4. Please adjusting the skew after changing the pickup unit(see page 132).
- High voltage is generated in the inverter when the power is supplied to the system. To avoid an electric shock, reconfirm that the power switch is set to OFF before starting operation.
  - Check of installation direction when G-Sensor Unit was after repair.

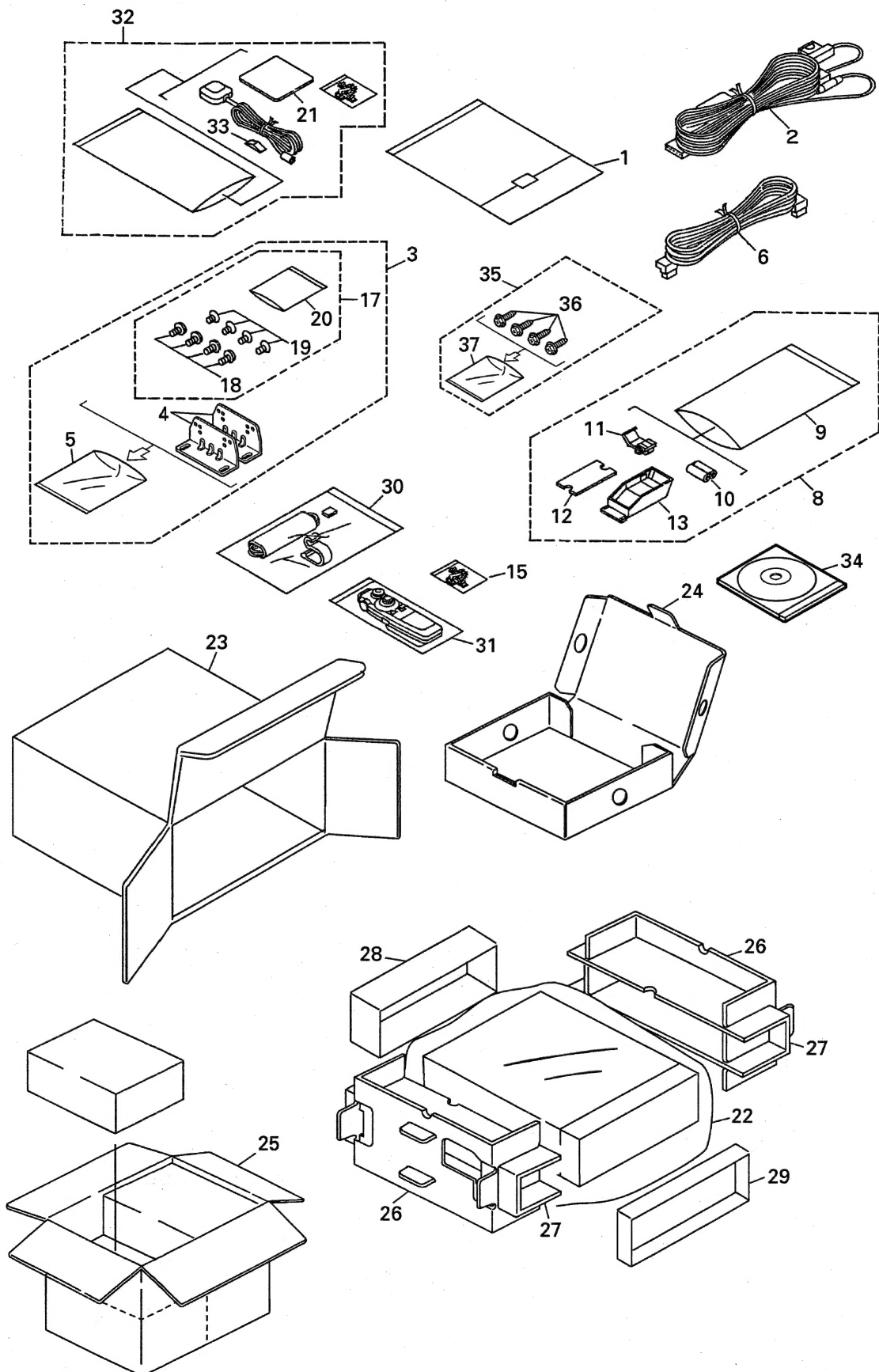
Forward / Aft direction of vehicle





## 2. EXPLODED VIEWS AND PARTS LIST

### 2.1 PACKING (AVIC-90DVD/UC)



**NOTE:**

- Parts marked by "\*" are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ▽ mark on the product are used for disassembly.
- For the applying amount of lubricants or glue, follow the instructions in this manual.  
( In the case of no amount instructions, apply as you think it appropriate.)

**● PACKING (AVIC-90DVD/UC) SECTION PARTS LIST**

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1-1	Owner's Manual	CRB1798	19	Screw	CMZ50P060FMC
1-2	Owner's Manual/PA/FRE	CRB1783	* 20	Polyethylene Sheet	CNM4338
1-3	Owner's Manual	CRB1796	21	Sheet	CZN5435
1-4	Owner's Manual/PA/FRE	CRB1797	22	Polyethylene Bag	CEG1173
1-5	Installation Manual	CRD3650	23	Carton	CHG4738
1-6	Owner's Manual	CRD3661	24	Sub Carton	CHG4392
* 1-8	Card	ARY1048	25	Contain Box	CHL4738
1-9	Polyethylene Bag	CEG1116	26	Protector	CHP2383
2	Cord Assy	CDE7062	27	Protector	CHP2384
3	Accessory Assy	CEA2913	28	Protector	CHP2386
4	Angle	CNC5619	29	Protector	CHP2387
* 5	Polyethylene Bag	E36-637	30	Microphone Assy	CPM1048
6	Cord Assy	CDE7024	31	Remote Control Assy	CXB9118
7	.....		32	GPS Antenna Assy	CXB9354
8	Accessory Assy	CEA2536	33	Water Proof Pad	CZN5442
9	Polyethylene Bag	CEG1011	34	DVD-ROM	CPJ1143
10	Battery	CEX1021	35	Screw Assy	CEA2938
11	Connector	CKX1049	36	Screw(M6x16)	CBA1295
12	Sheet	CNM6370	* 37	Polyethylene Bag	E36-613
13	Holder	CNS5606			
14	.....				
15	Cord Clamper Assy	CEA2776			
16	.....				
17	Screw Assy	CEA2896			
18	Screw	BMZ50P060FZK			

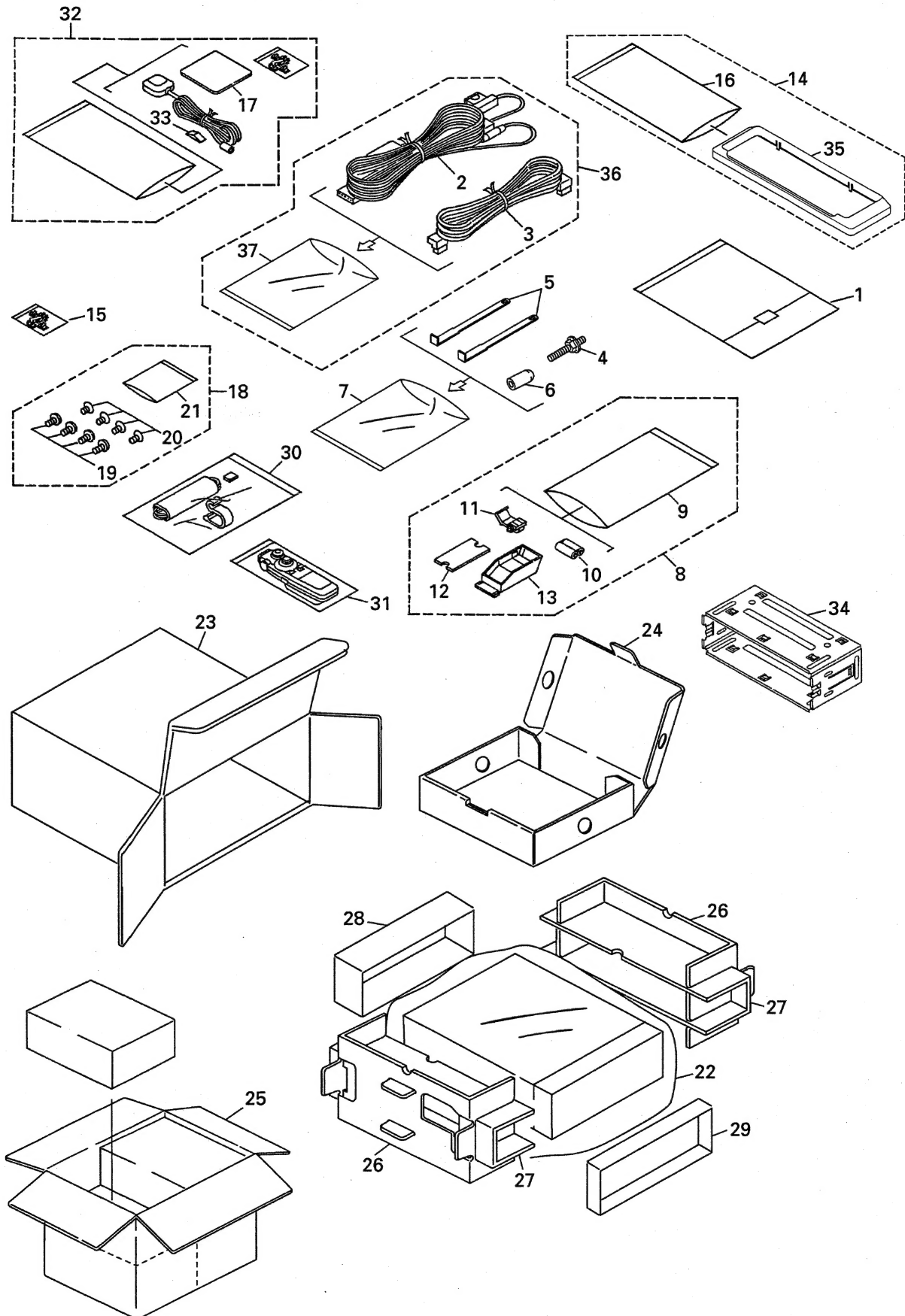
**● Owner's Manual**

Part No.	Language
CRD3661	English, French
CRB1798	English
CRB1783	French
CRB1796	English
CRB1797	French

**● Installation Manual**

Part No.	Language
CRD3650	English, French

2.2 PACKING (AVIC-90DVDII/EW)



● PACKING (AVIC-9DVDII/EW) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1-1	Installation Manual	CRD3647	11	Connector	CKX1049
1-2	Owner's Manual/PEE/ENG	CRB1776	12	Sheet	CNM6370
1-3	Owner's Manual/PEE/SPE	CRB1777	13	Holder	CNS5606
1-4	Owner's Manual/PEE/GER	CRB1778	14	Accessory Assy	CEA3331
1-5	Owner's Manual/PEE/FRE	CRB1779	15	Cord Clamper Assy	CEA2776
1-6	Owner's Manual/PEE/ITA	CRB1780	* 16	Polyethylene Bag	CEG-158
1-7	Owner's Manual/PEE/DUT	CRB1781	17	Sheet	CZN5435
1-8	Owner's Manual/PEE/ENG	CRB1790	18	Screw Assy	CEA2896
1-9	Owner's Manual/PEE/SPE	CRB1791	19	Screw	BMZ50P060FZK
1-10	Owner's Manual/PEE/GER	CRB1792	20	Screw	CMZ50P060FMC
1-11	Owner's Manual/PEE/FRE	CRB1793	* 21	Polyethylene Sheet	CNM4338
1-12	Owner's Manual/PEE/ITA	CRB1794	22	Polyethylene Bag	CEG-162
1-13	Owner's Manual/PEE/DUT	CRB1795	23	Carton	CHG4736
* 1-14	Warranty Card	CRY1157	24	Sub Carton	CHG4392
1-15	Passport	CRY1013	25	Contain Box	CHL4736
* 1-16	Polyethylene Bag	E36-634	26	Protector	CHP2383
2	Cord Assy	CDE7062	27	Protector	CHP2384
3	Cord Assy	CDE7024	28	Protector	CHP2386
4	Screw	CBA1002	29	Protector	CHP2387
5	Handle	CNC5395	30	Microphone Assy	CPM1048
6	Bush	CNV3930	31	Remote Control Assy	CXB9118
* 7	Polyethylene Bag	E36-615	32	GPS Antenna Assy	CXB9354
8	Accessory Assy	CEA2536	33	Water Proof Pad	CZN5442
9	Polyethylene Bag	CEG1011	34	Holder	CNC8659
10	Battery	CEX1021	35	Panel	CNS6552
			36	Accessory Assy	CEA3332
			37	Polyethylene Bag	CEG1042



● Owner's Manual

Part No.	Language
CRB1776, CRB1790	English
CRB1777, CRB1791	Spanish
CRB1778, CRB1792	German
CRB1779, CRB1793	French
CRB1780, CRB1794	Italian
CRB1781, CRB1795	Dutch

● Installation Manual

Part No.	Language
CRD3647	English, Spanish, German, French, Italian, Dutch

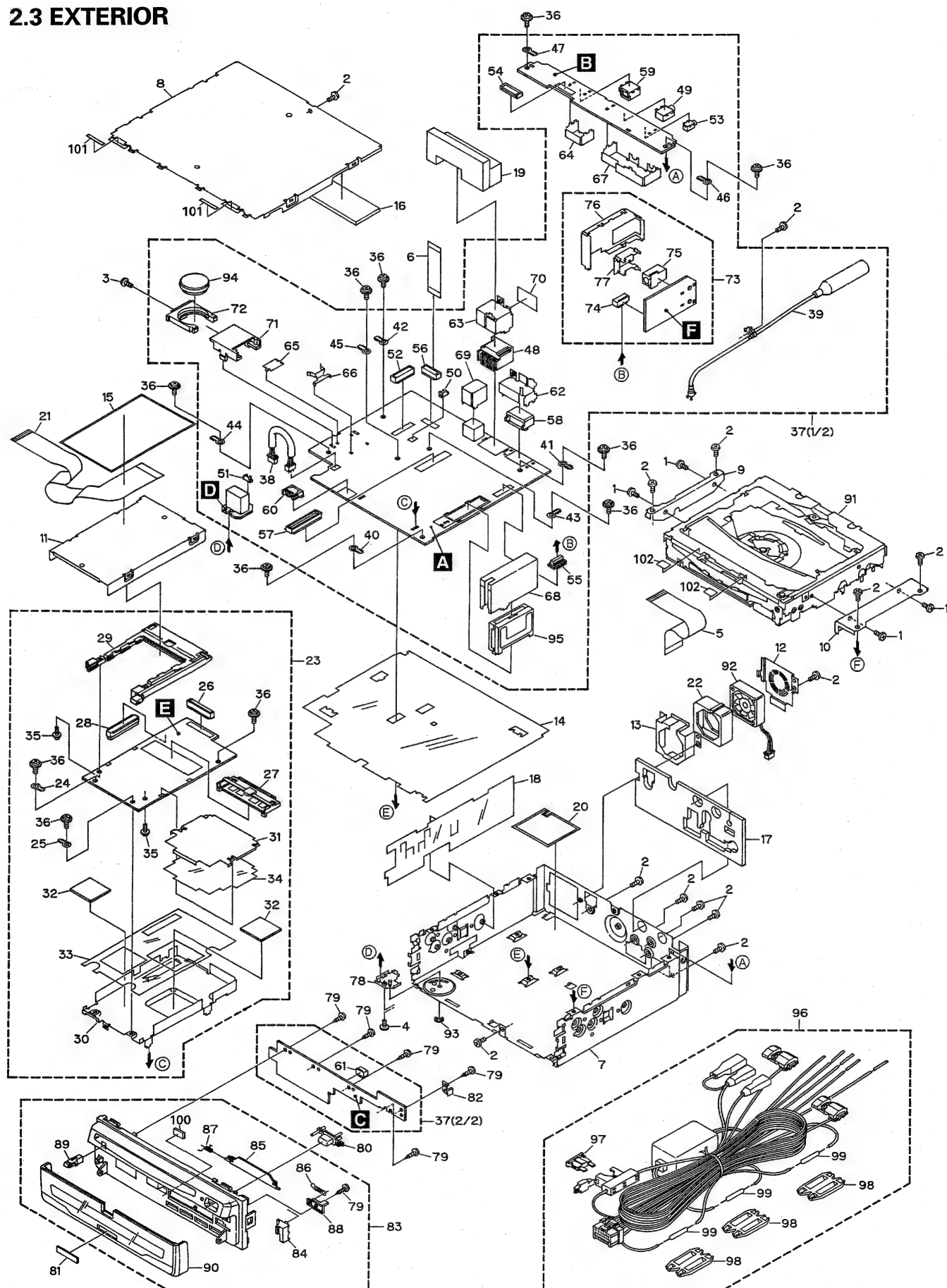
As materials for on-site adjustment, the following items are contained in the package:

- CRB1776, CRB1790 (Owner's manual in English) \*A
- CRD3647 (Installation manual in English, Spanish, German, French, Italian and Dutch) \*A
- CRB1777, CRB1791 (Owner's manual in Spanish) \*B
- CRD3647 (Installation manual in English, Spanish, German, French, Italian and Dutch) \*B
- CRB1778, CRB1792 (Owner's manual in German) \*C
- CRD3647 (Installation manual in English, Spanish, German, French, Italian and Dutch) \*C
- CRB1779, CRB1793 (Owner's manual in French) \*D
- CRD3647 (Installation manual in English, Spanish, German, French, Italian and Dutch) \*D
- CRB1780, CRB1794 (Owner's manual in Italian) \*E
- CRD3647 (Installation manual in English, Spanish, German, French, Italian and Dutch) \*E
- CRB1781, CRB1795 (Owner's manual in Dutch) \*F
- CRD3647 (Installation manual in English, Spanish, German, French, Italian and Dutch) \*F

When the products are shipped from our factory, the above manuals are not included. A pair of manuals (\*A, \*B, \*C, \*D, \*E, or \*F) will be attached to the product package on the site (PEE) according to the language used in the country or area to which the product is delivered.



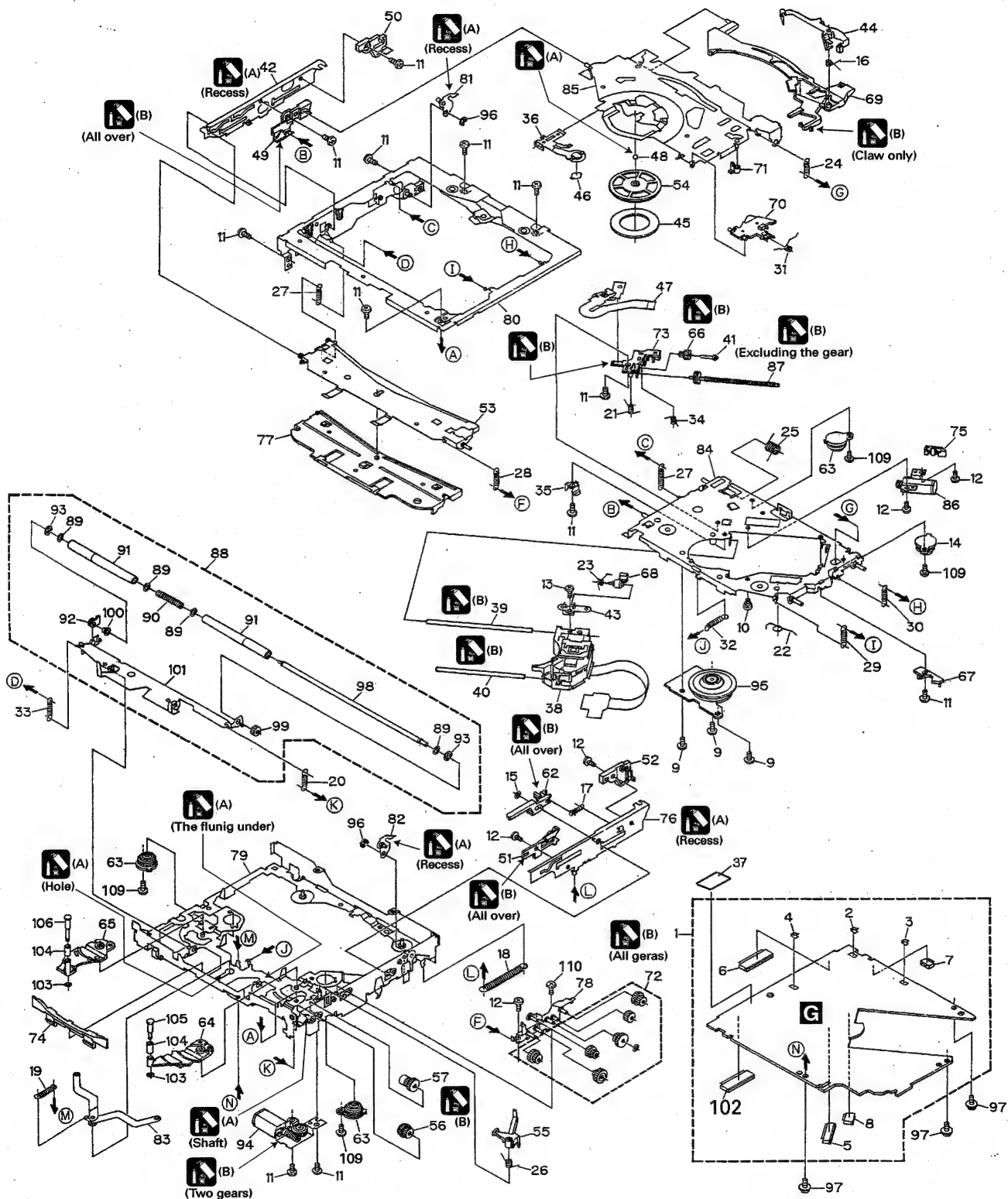
## 2.3 EXTERIOR



● EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Screw	BMZ20P025FMC	53	Connector(CN5001)	CKS3759
2	Screw	BMZ26P040FMC	54	Connector(CN5004)	CKS3991
3	Screw(M2.6x4)	CBA1013	55	Connector(CN552)	CKS4065
4	Screw(M3x3)	CBA1534	56	Connector(CN3901)	CKS4361
5	FFC	CDE6529	57	Connector(CN3254)	CKS4430
6	FFC	CDE6530	58	Connector(CN3257)	CKS4463
7	Chassis(UC MODEL)	CNA2418	59	Connector(CN5002)	CKS4473
	Chassis(EW MODEL)	CNA2555	60	Connector(CN660)	CKS4518
8	Case	CNB2712	61	Connector(CN2851)	CKS4519
9	Bracket	CNC9280	62	Holder	CNC9270
10	Bracket	CNC9281	63	Holder	CNC9271
11	Shield	CNC9643	64	Holder	CNC9272
12	Holder	CNC9719	65	Holder	CNC9474
13	Holder	CNC9720	66	Holder	CNC9475
14	Insulator	CNM7186	67	Holder	CNC9477
15	Insulator	CNM7597	68	Shield(EW MODEL)	CNC9533
16	Cushion	CNM7442	69	Shield	CNC9635
17	Cushion	CNM7459	70	Insulator	CNM7535
18	Insulator	CNM7460	71	Holder	CNV6763
19	Cushion	CNM7461	72	Holder	CNV6764
20	Insulator	CNM7506	73	GPS Unit(UC MODEL)	CWX2591
21	PCB	CNP6231		GPS Unit(EW MODEL)	CWX2590
22	Cover	CNV6912	74	Connector(CN461)	CKS4280
23	CC Unit(UC MODEL)	CWM8391	75	Connector(CN504)	CKS4432
	CC Unit(EW MODEL)	CWM8390	76	Shield	CNC9191
24	Terminal(CN99)	CKF1064	77	Holder	CNC9252
25	Terminal(CN100)	CKF1064	78	Holder Unit	CXB7069
26	Connector(CN2)	CKS3930	79	Screw	BPZ20P050FMC
27	Connector(CN901)	CKS4070	80	Button(EJECT)	CAC7005
28	Connector(CN302)	CKS4429	* 81	Badge	CAH1754
29	Connector	CKS4434	82	Earth Plate	CNC9476
30	Shield	CNC9267	83	Grille Unit(UC MODEL)	CXB9390
31	Shield	CNC9485		Grille Unit(EW MODEL)	CXB8500
32	Sheet	CNM7902	84	Button(PC-CARD)	CAC7105
33	Insulator	CNM7456	85	Door	CAT2285
34	Insulator	CNM7532	86	Spring	CBH2258
35	Screw	IMS20P060FCR	87	Spring	CBH2499
36	Screw	IMS26P030FMC	88	Holder	CNV6794
37	Main Unit(UC MODEL)	CWM8484	89	Latch Unit	CXB3967
	Main Unit(EW MODEL)	CWM8482	90	Door Unit(UC MODEL)	CXB7566
38	Cord Assy(CN555)	CDE5955		Door Unit(EW MODEL)	CXB7277
39	Antenna Cable(CN551)(EW MODEL)	CDH1304	91	DVD Mechanism Module(MS2)	CXK6160
40	Terminal(CN553)	CKF1064	92	Fan Motor	CXM1192
41	Terminal(CN554)	CKF1064	93	Washer	YE20FUC
42	Terminal(CN1803)	CKF1064	* 94	Battery	CEX1068
43	Terminal(CN3258)	CKF1064	95	Tuner Unit(FE551)(EW MODEL)	CWE1622
44	Terminal(CN3259)	CKF1064	96	Cord Assy	CDE7062
45	Terminal(CN3903)	CKF1064	97	Fuse(7.5A)	CEK1135
46	Terminal(CN5006)	CKF1064	98	Cap	CNS1472
47	Terminal(CN5007)	CKF1064	99	Resistor	RS1/2PMF102J
48	Connector(CN1801)	CKM1341	100	Sheet	CNM7595
49	Jack(CN5005)	CKN1035	101	Sheet	CNM7670
50	Connector(CN1802)	CKS3124	102	Sheet	CNM7671
51	Connector(CN556)	CKS3125			
52	Connector(CN3251)	CKS3751			

## 2.4 DVD MECHANISM MODULE

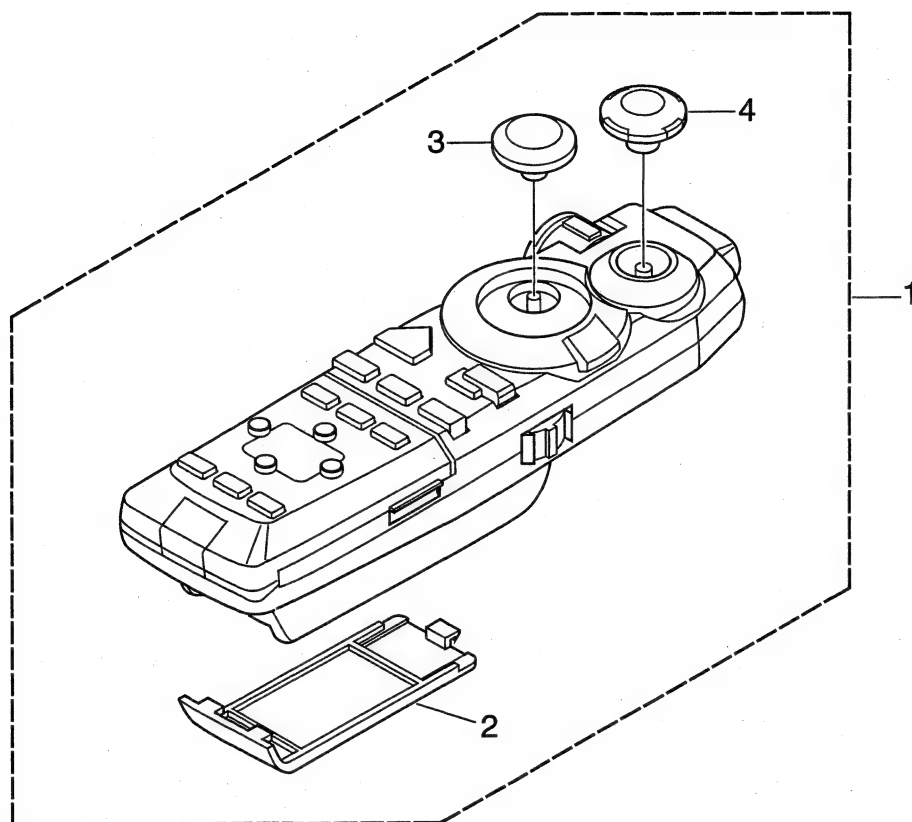


(A) : GEM1024  
(B) : GEM1040

● DVD MECHANISM MODULE SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	DVD Core Unit	CWX2727	56	Gear	CNV6361
2	Terminal(CN1703)	CKF1065	57	Gear	CNV6362
3	Terminal(CN1705)	CKF1065	58-61	.....	
4	Terminal(CN1706)	CKF1065	62	Rack	CNV6367
5	Connector(CN1100)	CKS3749	63	Damper	CNV6368
6	Connector(CN1701)	CKS4052	64	Arm	CNV6369
7	Connector(CN1700)	CKS4374	65	Arm	CNV6370
8	Connector(CN1300)	CKS4507	66	Gear	CNV6372
9	Screw(M2x3)	CBA1486	67	Holder	CNV6374
10	Screw	CBA1535	68	Rack	CNV6376
11	Screw(M2x2.2)	CBA1547	69	Arm	CNV6377
12	Screw(M2x2.2)	CBA1548	70	Arm	CNV6378
13	Screw(M1.4x2)	CBA1549	71	Arm	CNV6379
14	Damper	CNV6927	72	Gear Unit	CXB5959
15	Washer	CBF1038	73	Holder	CNV6383
16	Spring	CBH2394	74	Guide	CNV6384
17	Spring	CBH2395	75	Holder	CNV6385
18	Spring	CBH2396	76	Lever Unit	CXB5943
19	Spring	CBH2397	77	Holder Unit	CXB5944
20	Spring	CBH2622	* 78	Holder Unit	CXB5947
21	Spring	CBH2399	79	Frame Unit	CXB5948
22	Spring	CBH2400	80	Frame Unit	CXB5949
23	Spring	CBH2401	81	Arm Unit	CXB5950
24	Spring	CBH2402	82	Arm Unit	CXB5951
25	Spring	CBH2403	83	Arm Unit	CXB5952
26	Spring	CBH2404	84	Chassis Unit	CXB5953
27	Spring	CBH2405	85	Arm Unit	CXB5954
28	Spring	CBH2406	86	Motor Unit(CRG)	CXB5955
29	Spring	CBH2407	87	Screw Unit	CXB5957
30	Spring	CBH2408	88	Roller Unit	CXB5958
31	Spring	CBH2410	89	Washer	CBF1060
32	Spring	CBH2411	90	Spring	CBH2170
33	Spring	CBH2413	91	Roller	CNV6068
34	Spring	CBH2414	92	Holder	CNV6210
35	Spring	CBL1499	93	Washer	YE20FUC
36	Spring	CBL1500	94	Motor Unit(LOAD)	CXB5960
37	Sheet	CNM7590	95	Motor Unit(SPDL)	CXB6218
38	Pickup Unit(Service)(DP4)	CXX1530	96	Washer	YE15FUC
39	Shaft	CLA3878	97	Screw	IMS20P030FMC
40	Shaft	CLA3879	* 98	Shaft	CLA3877
41	Shaft	CLA3881	* 99	Gear	CNV6359
42	Lever	CNC8988	* 100	Collar	CNV6382
43	Bracket	CNC8992	* 101	Arm Unit	CXB5945
44	Arm	CNC8994	102	Connector(CN1401)	CKS4052
45	Sheet	CNM6883	103	Washer	CBF1087
46	Sheet	CNM6884	104	Roller	CNV6928
47	PCB	CNP5971	105	Shaft	CLA4180
48	Ball	CNR1189	106	Shaft	CLA4181
49	Guide	CNV6352	107,108	.....	
50	Guide	CNV6353	109	Screw (M2x3.5)	CBA1560
51	Guide	CNV6354	110	Screw (M2x2.2)	CBA1419
52	Guide	CNV6355			
53	Guide	CNV6356			
54	Clamper	CNV6357			
55	Arm	CNV6358			

## 2.5 REMOTE CONTROL ASSY



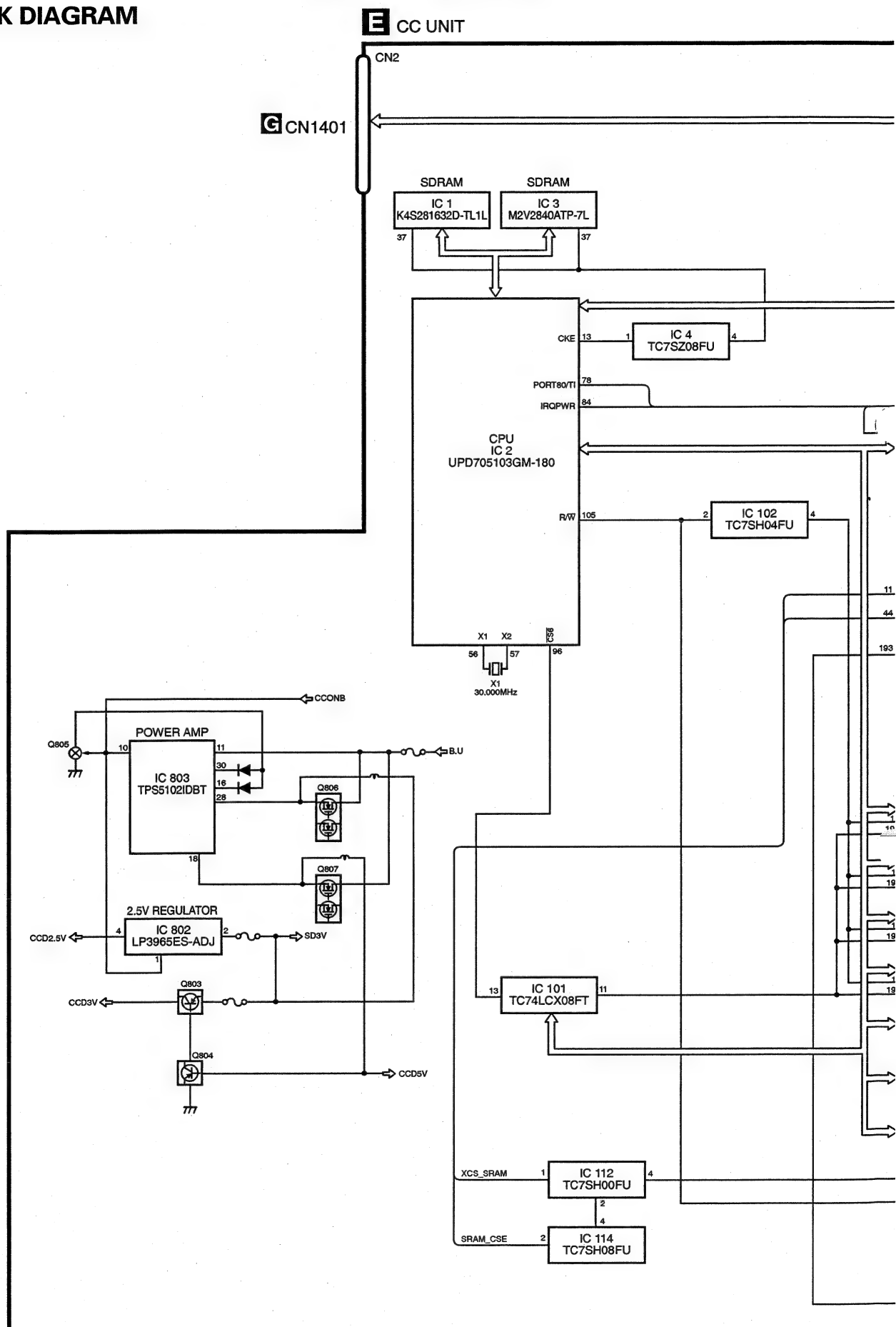
### ● REMOTE CONTROL ASSY SECTION PARTS LIST

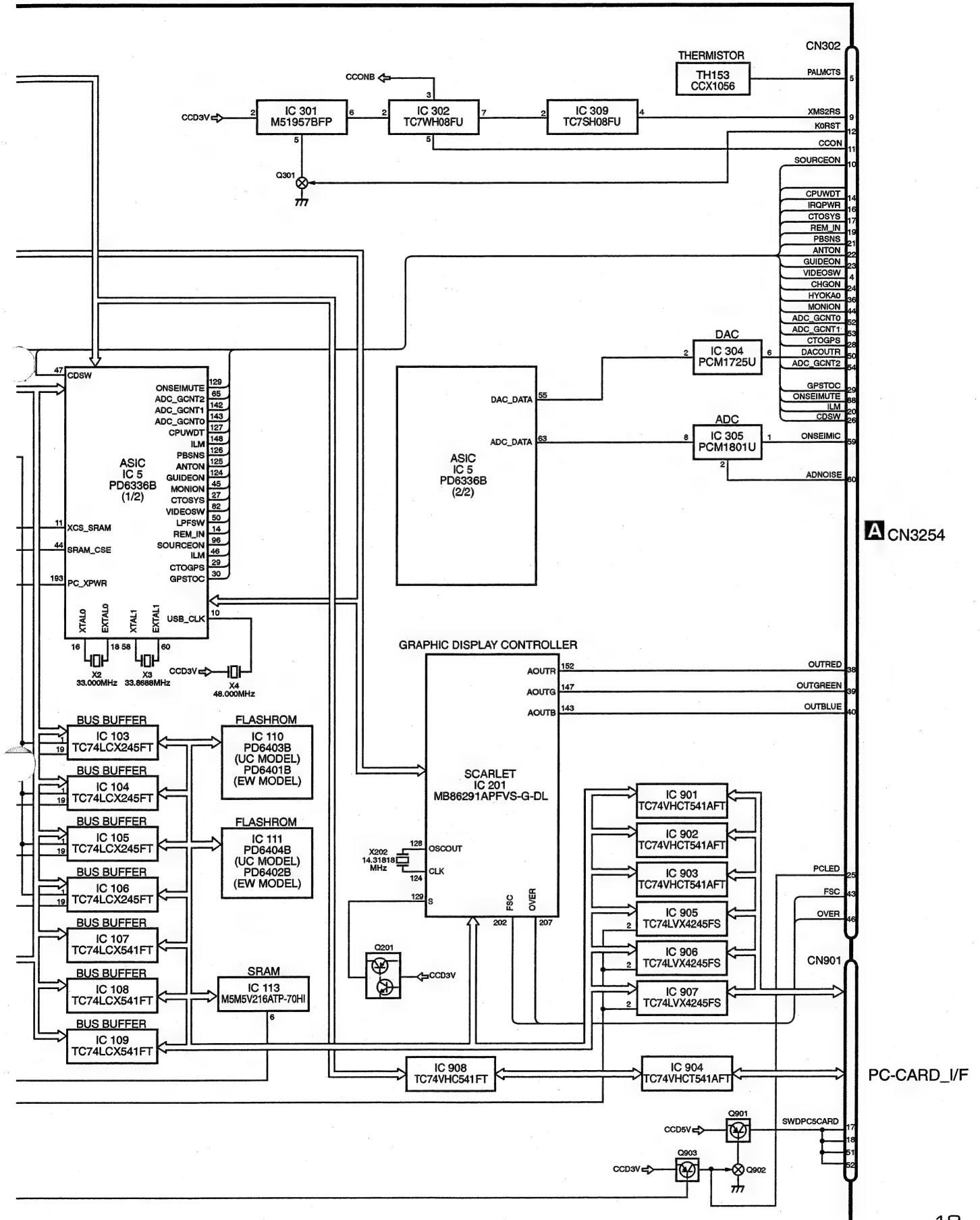
Mark No.	Description	Part No.
1	Remote Control Assy	CXB9118
2	Cover	CZN5432
3	Scroll Stick	CZA5047
4	3D View Stick	CZA5085



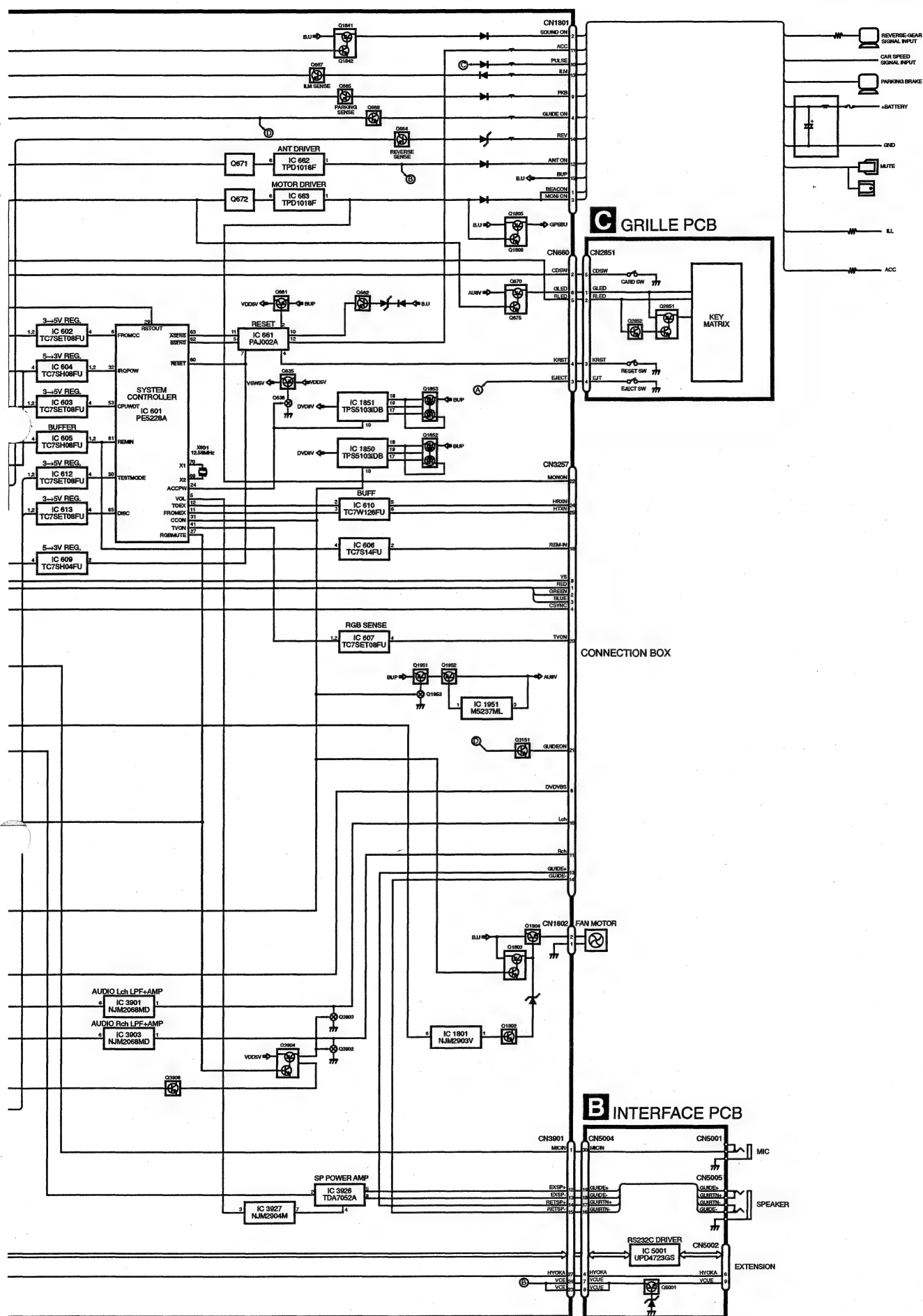


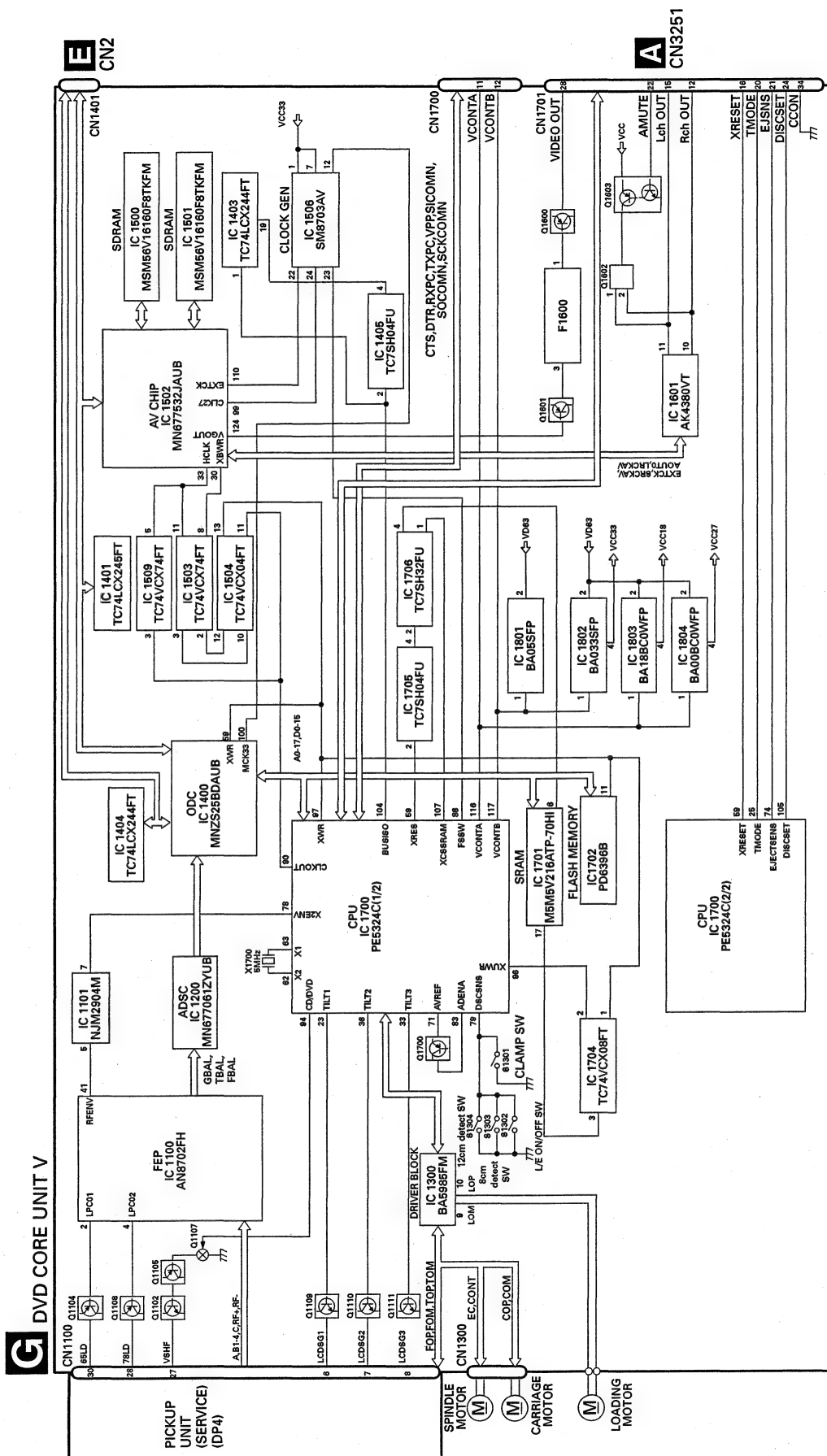
### 3.1 BLOCK DIAGRAM









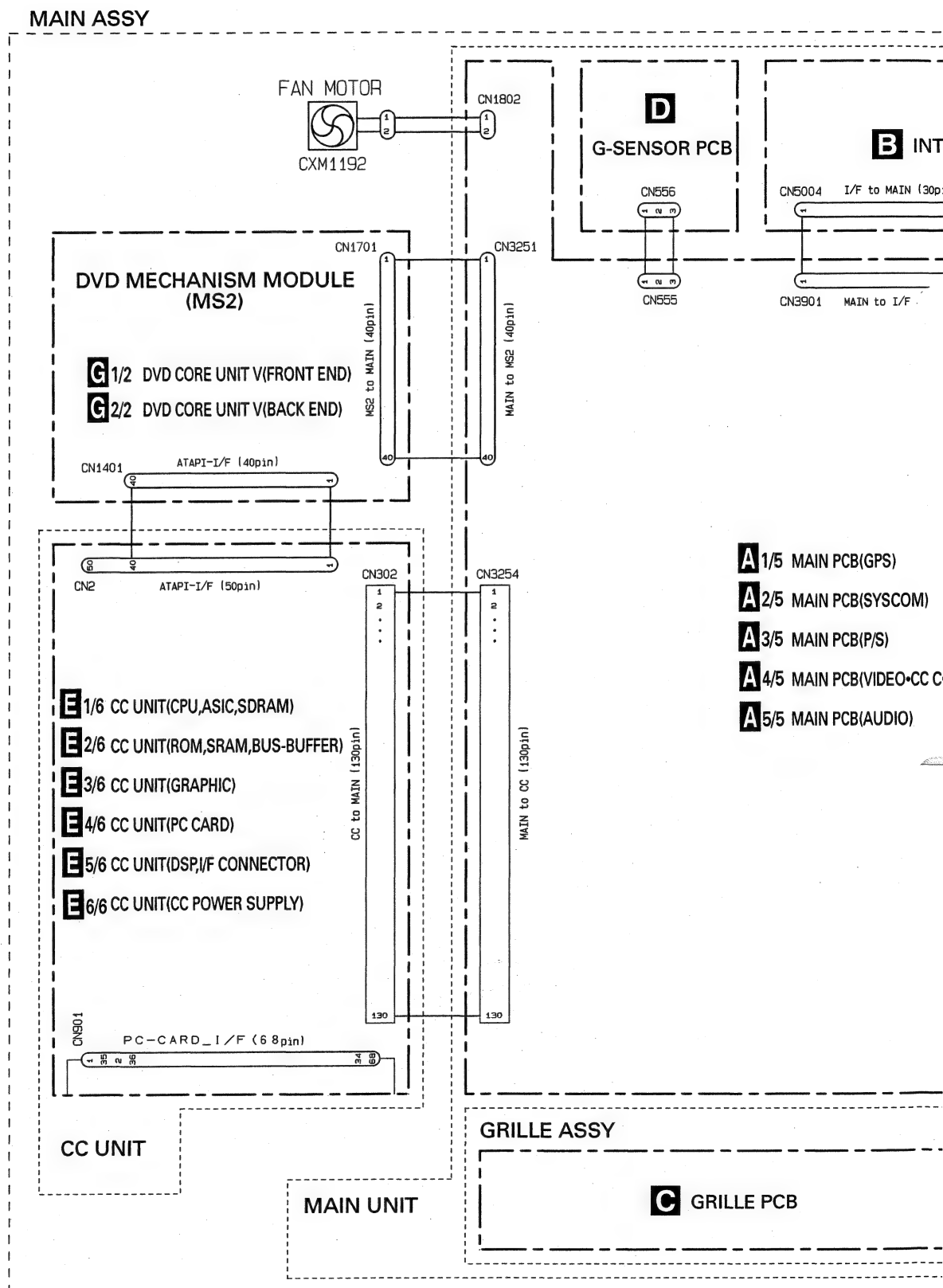






## 3.2 OVERALL CONNECTION DIAGRAM

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



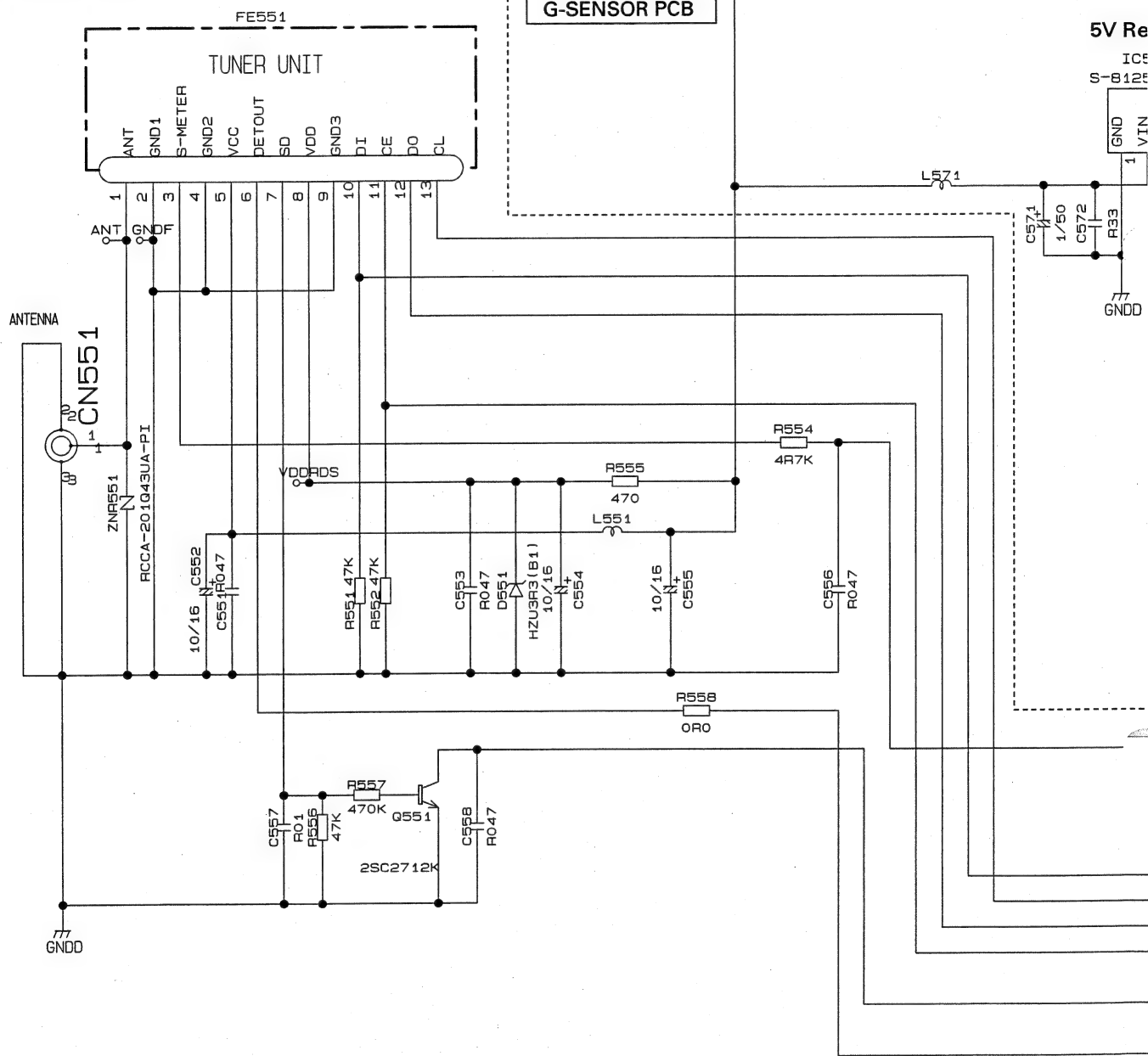


### 3.3 MAIN PCB 1/5 (GPS)

#### A1/5 MAIN PCB(GPS)

EW MODEL ONLY

**MAIN UNIT**  
Consists of  
MAIN PCB  
INTERFACE PCB  
GRILLE PCB  
G-SENSOR PCB



**NOTE :**

- Symbol indicates a resistor.  
No differentiation is made between chip resistors and discrete resistors.
- |— Symbol indicates a capacitor.  
No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as :  
2.2 → 2R2  
0.022 → R022

The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.





**A/25 MAIN PCB(SYS/COM)**

**A/4/5**

**A/5/5**

**A/3/5**

**MAIN UNIT**  
Consists of  
MAIN PCB  
INTERFACE PCB  
GRILLE PCB  
G-SENSOR PCB

**A/4/5**

<b>MAIN UNIT</b>
Consists of MAIN PCB INTERFACE PCB GRILLE PCB G-SENSOR PCB

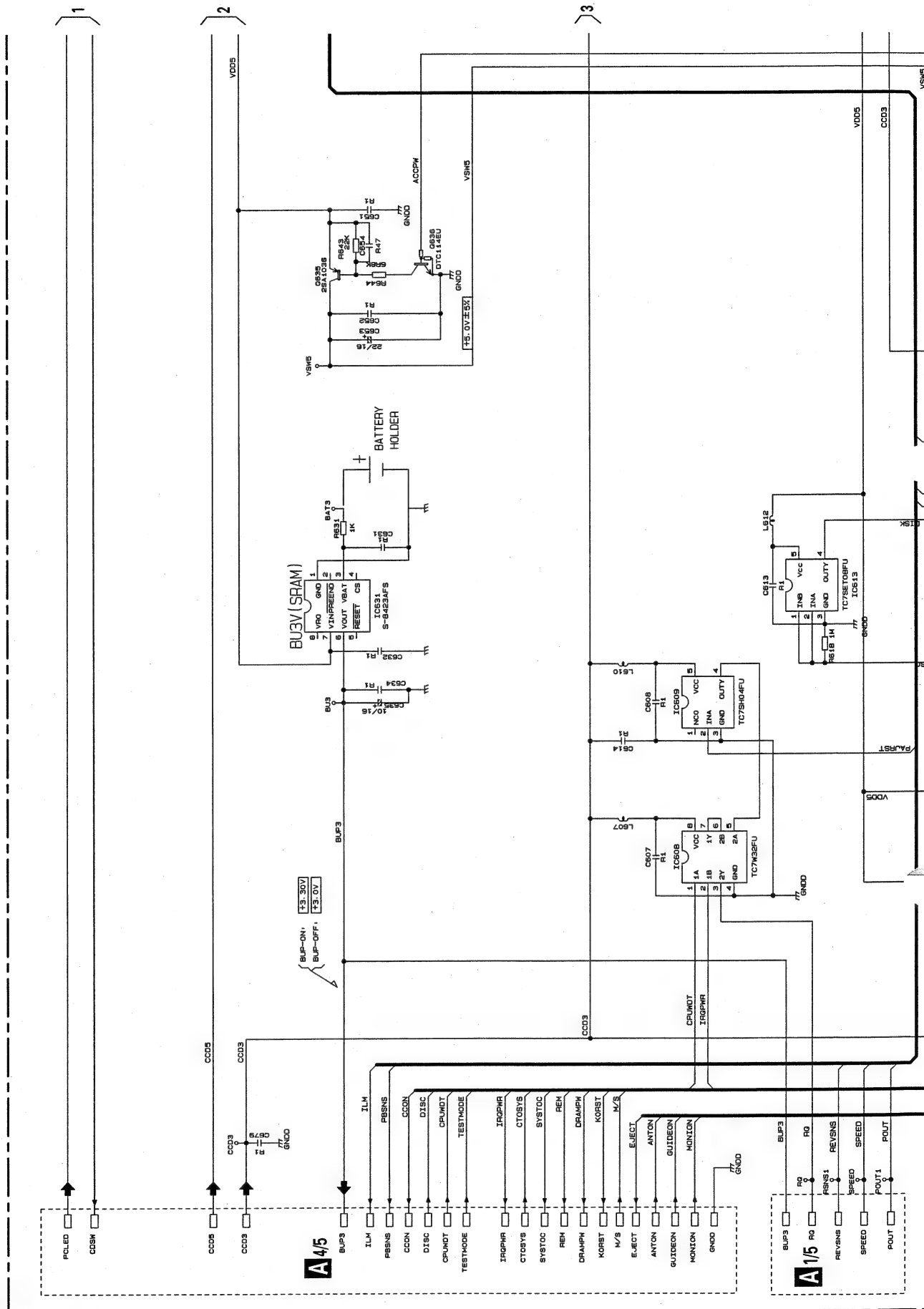
A

B

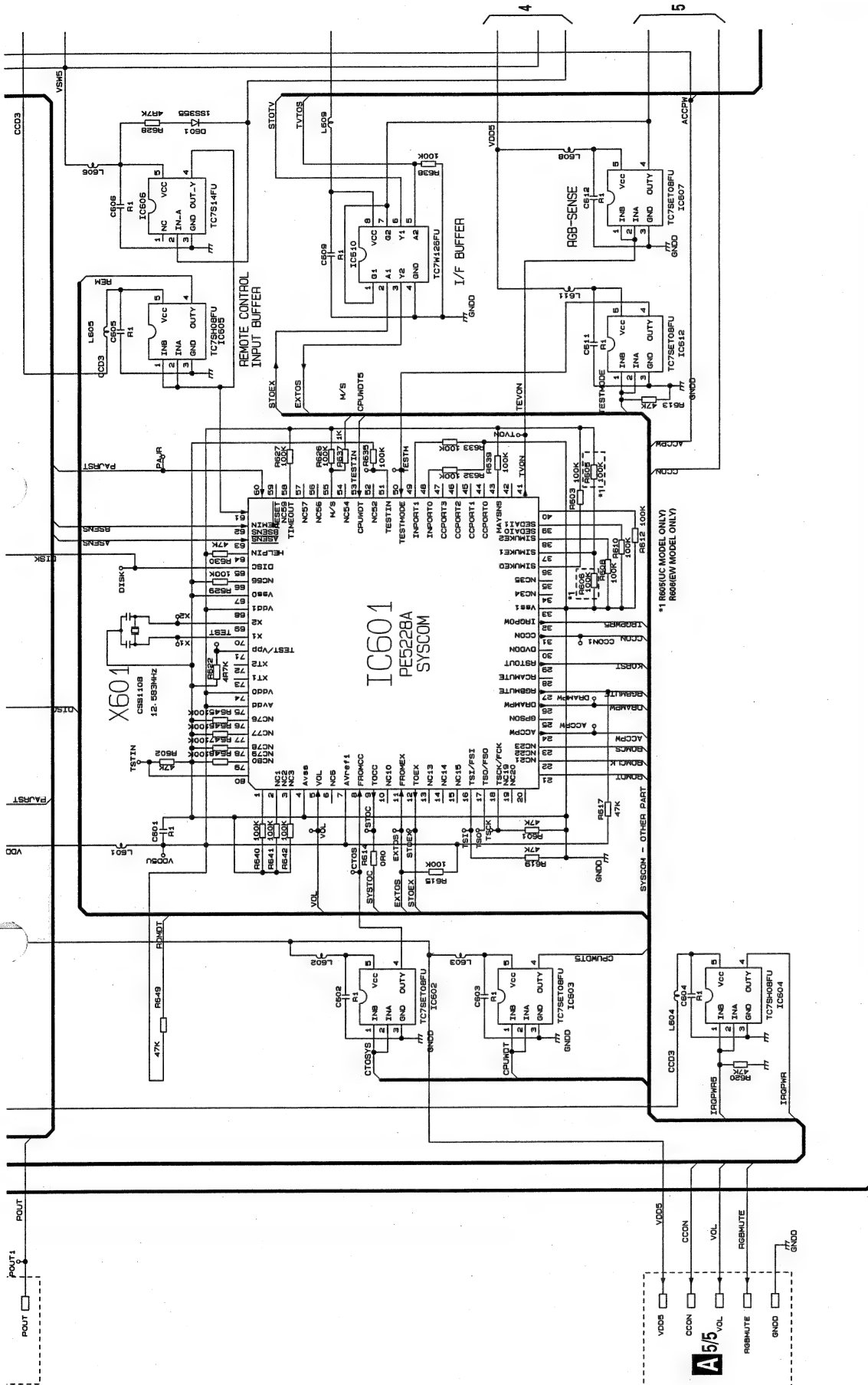
C

D

A-a A-b







A-a A-b

A

B

C

D

A-a A-b

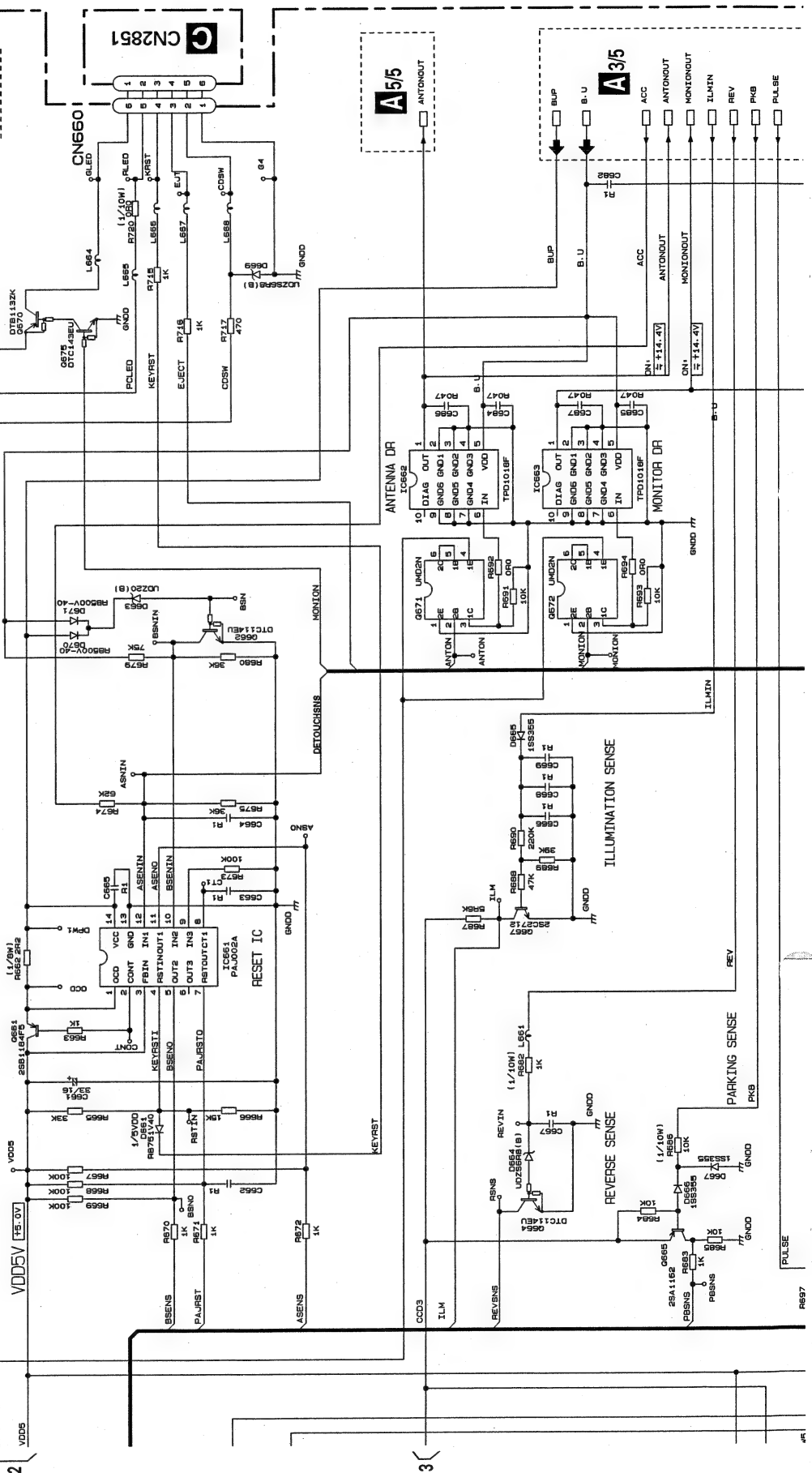
**A2/5** MAIN PCB(SYS/COM)

**A4/5** AUBV

**C** CN2851

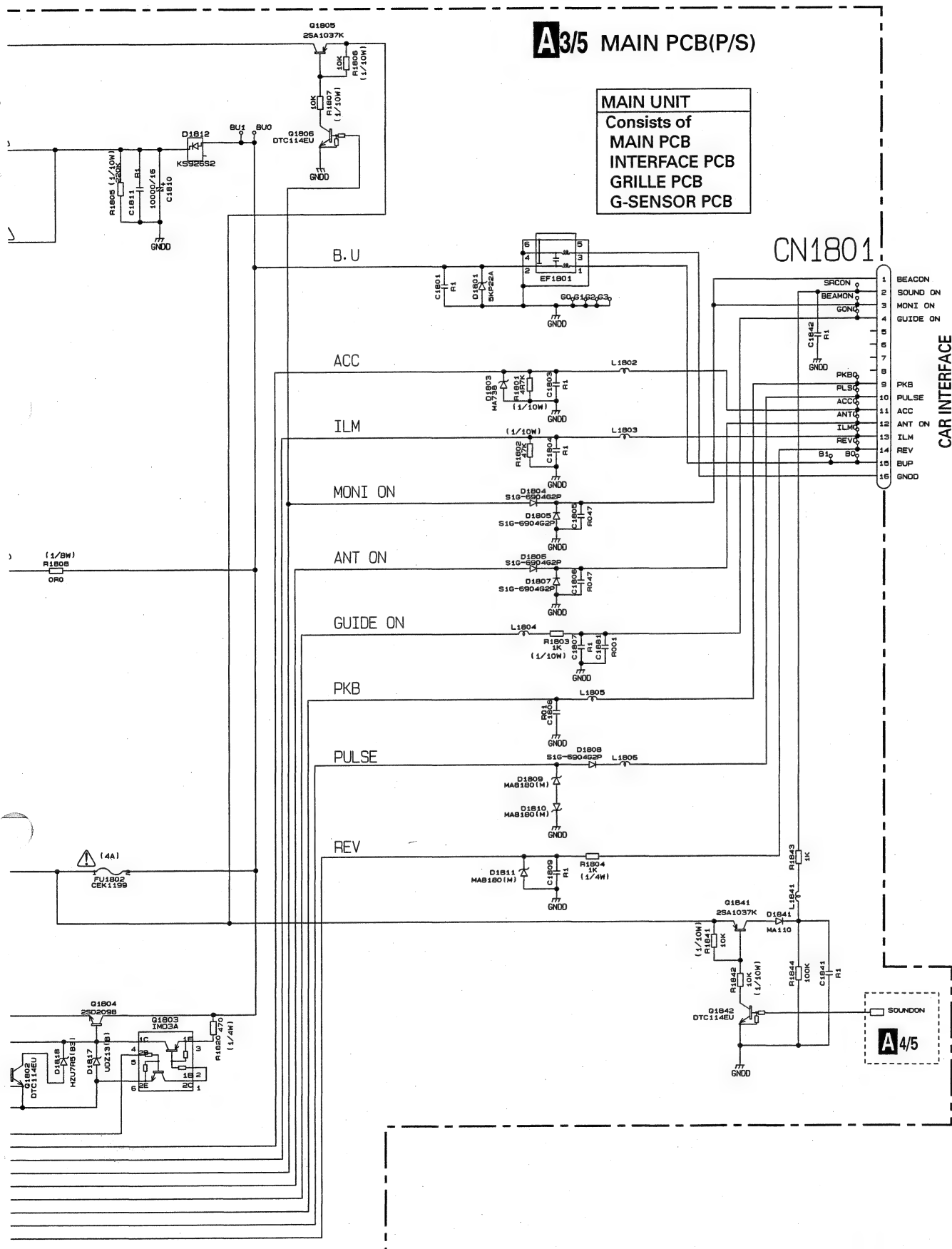
**A5/5** ANTENOUT

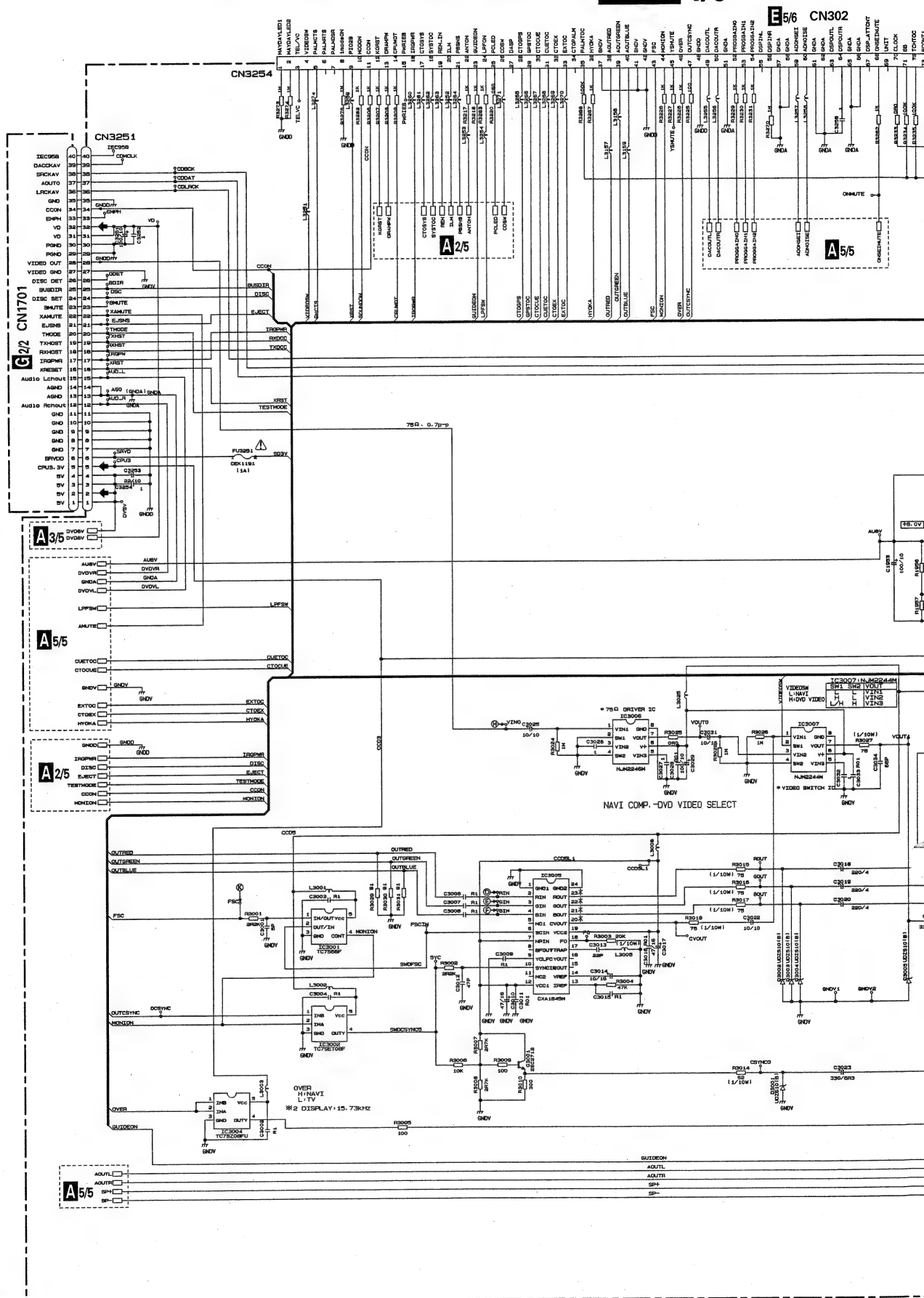
**A3/5** ACC ANTENOUT MONITOROUT ILMIN REV PKB PULSE



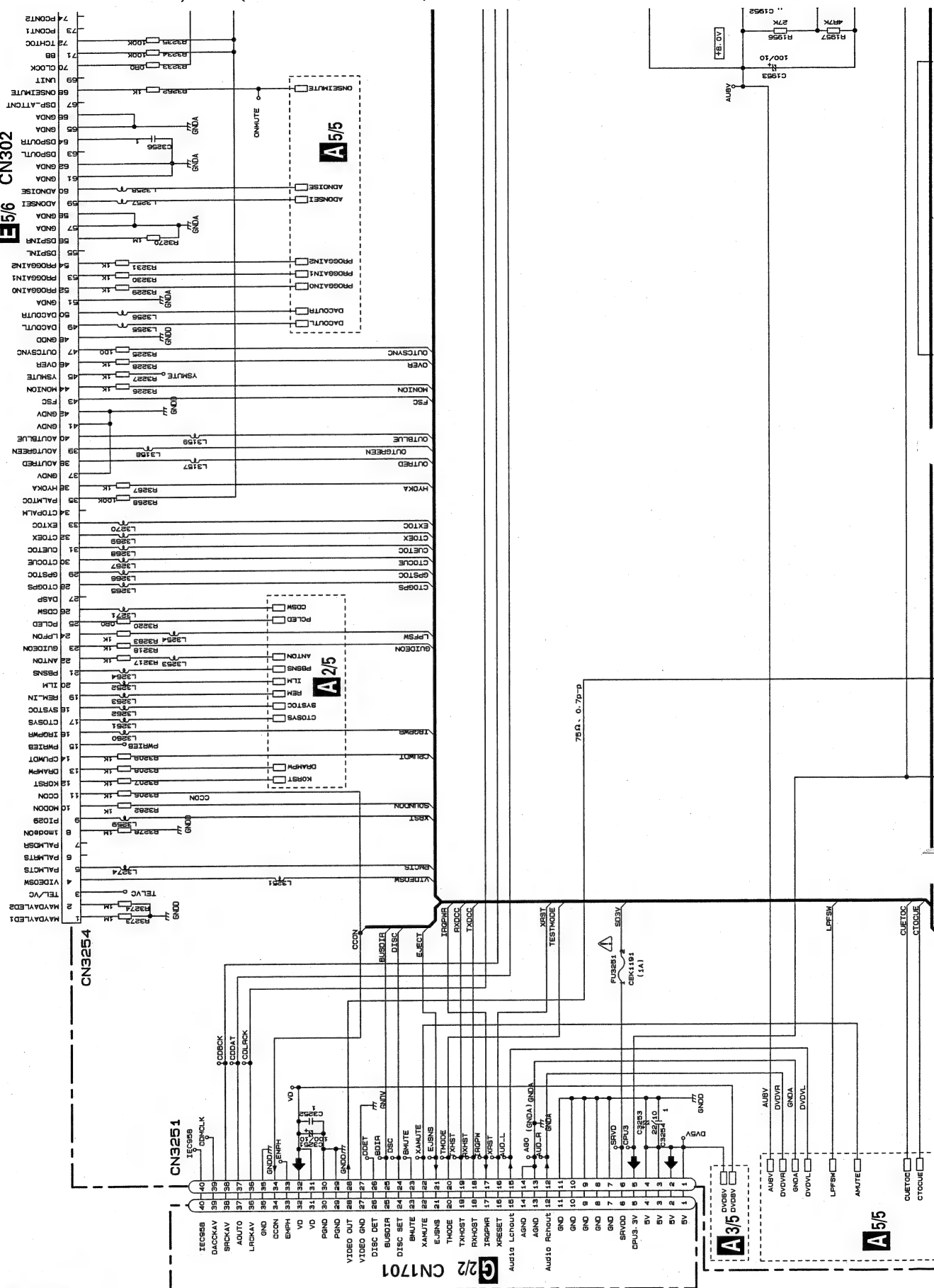












E5/6 CN302

A5/5

A2/5

G2/2 CN1701

A3/5

A5/5

A-a A-b

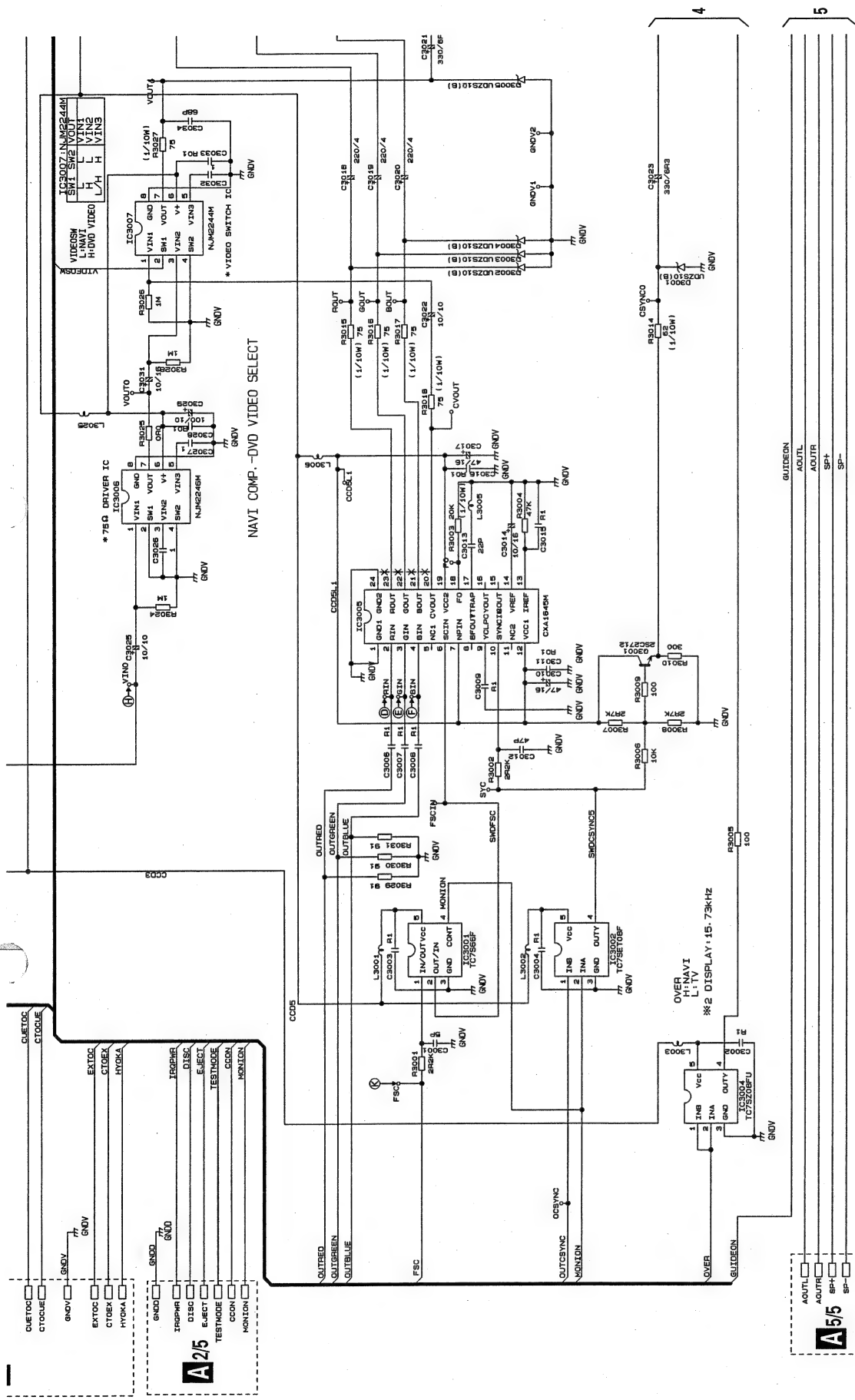
A

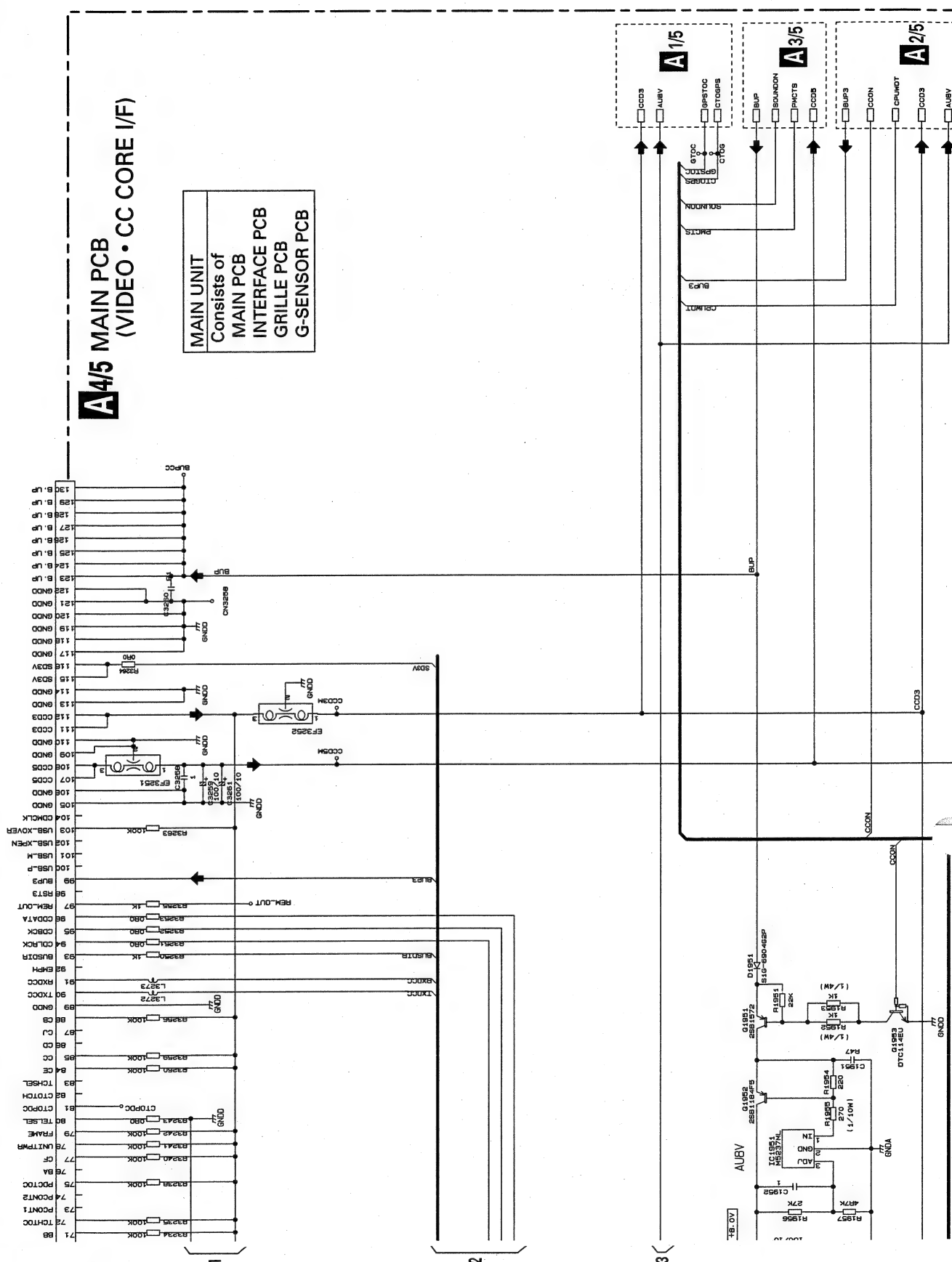
B

C

D



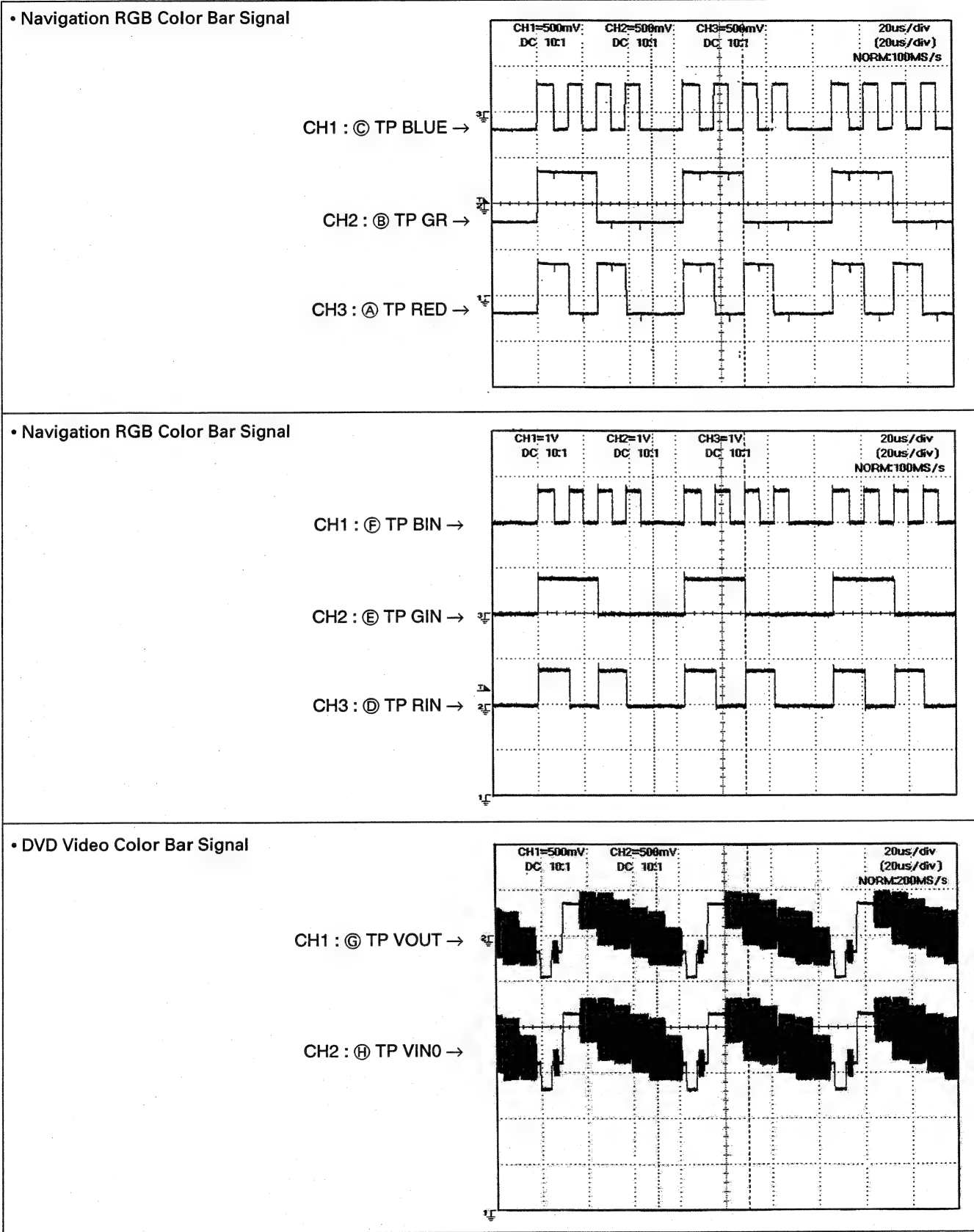




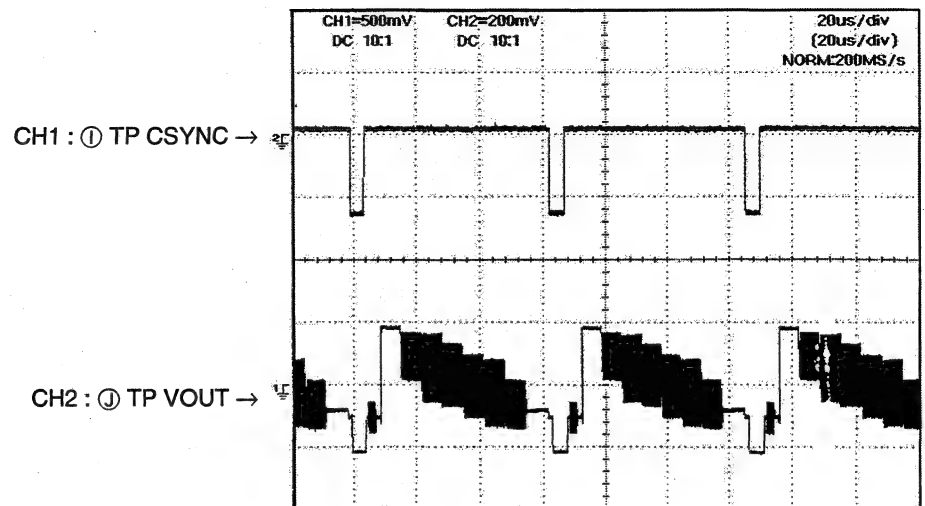


Note: The encircled numbers denote measuring pointes in the circuit diagram.

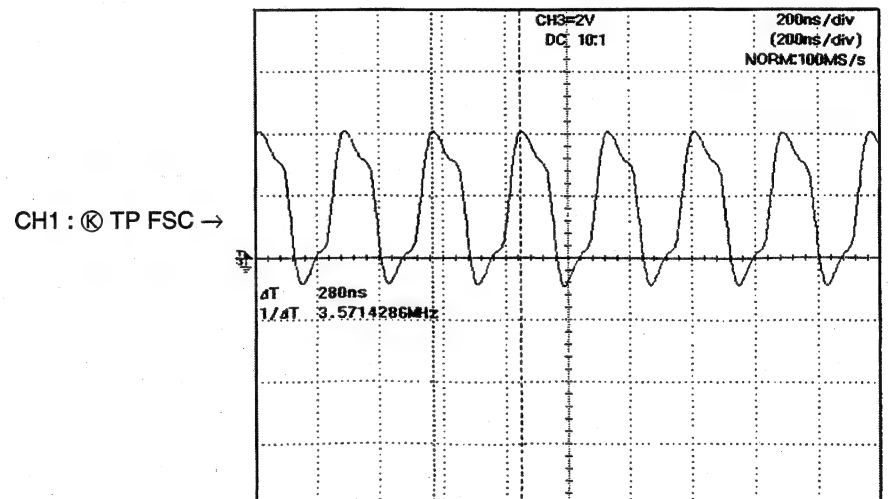
● Waveforms



• DVD Video Color Bar Signal



• DVD Video Color Bar Signal



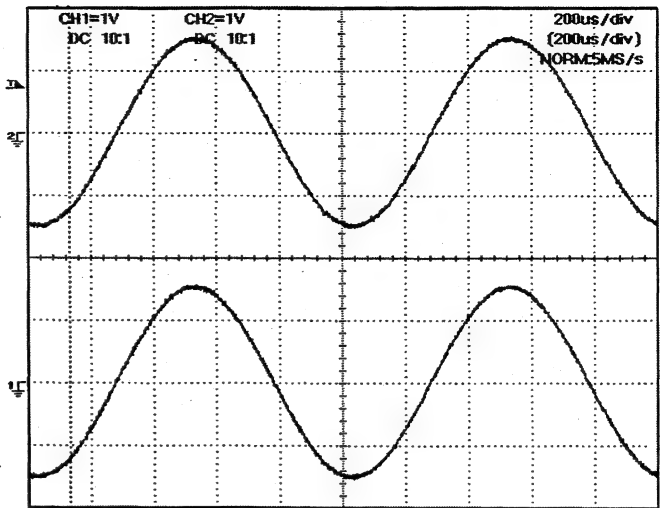
AVIC-90DVD,9DVDII

• DVD Video : 1kHz, 0dB (48kHz and 16bit Sampling)

\* The A1 Disk is used.

CH1 : ① TP Lch →

CH2 : ② TP Rch →

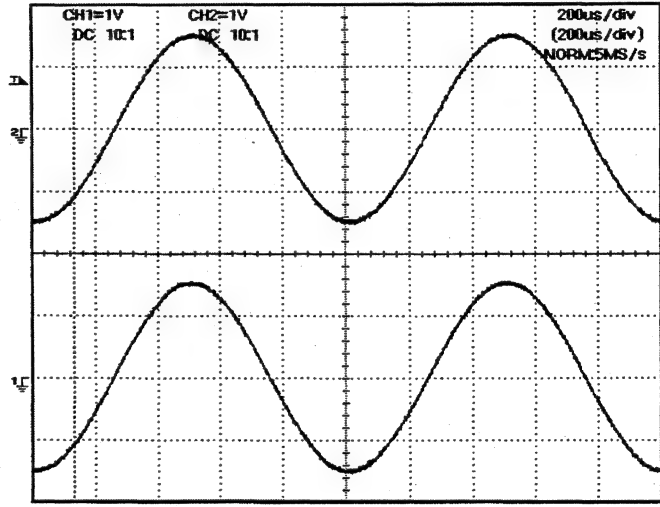


• DVD Video : 1kHz, 0dB (96kHz and 24bit Sampling)

\* The A1 Disk is used.

CH1 : ① TP Lch →

CH2 : ② TP Rch →

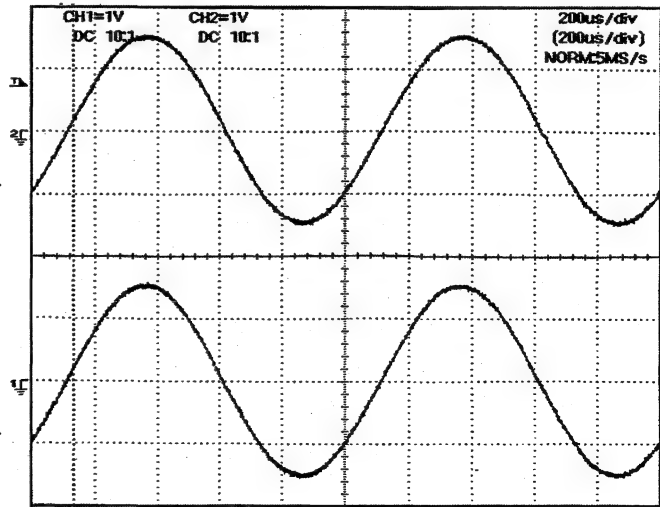


• CDDA : 1kHz, 0dB

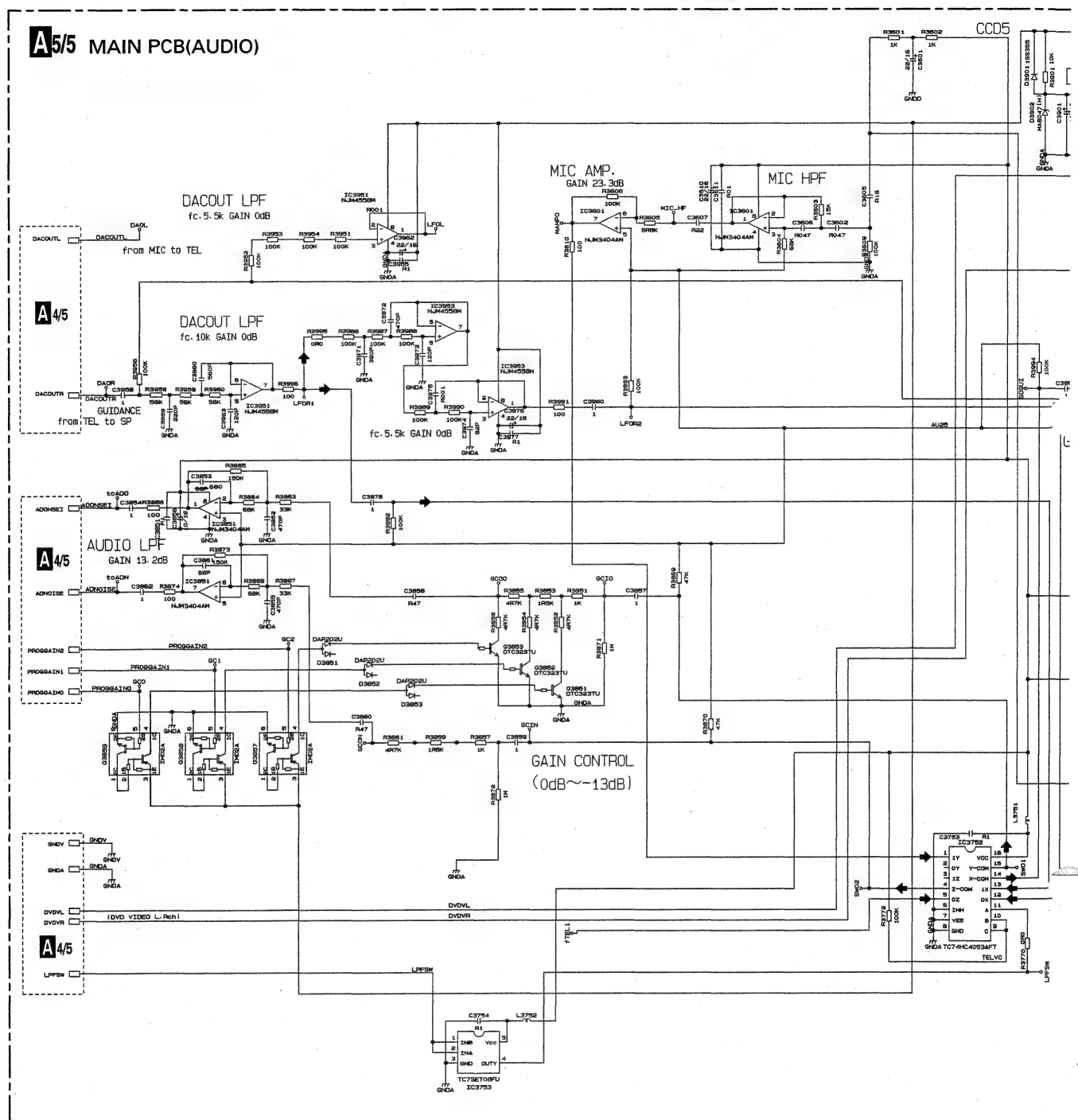
\* The TCD-785 Disk is used.

CH1 : ① TP Lch →

CH2 : ② TP Rch →

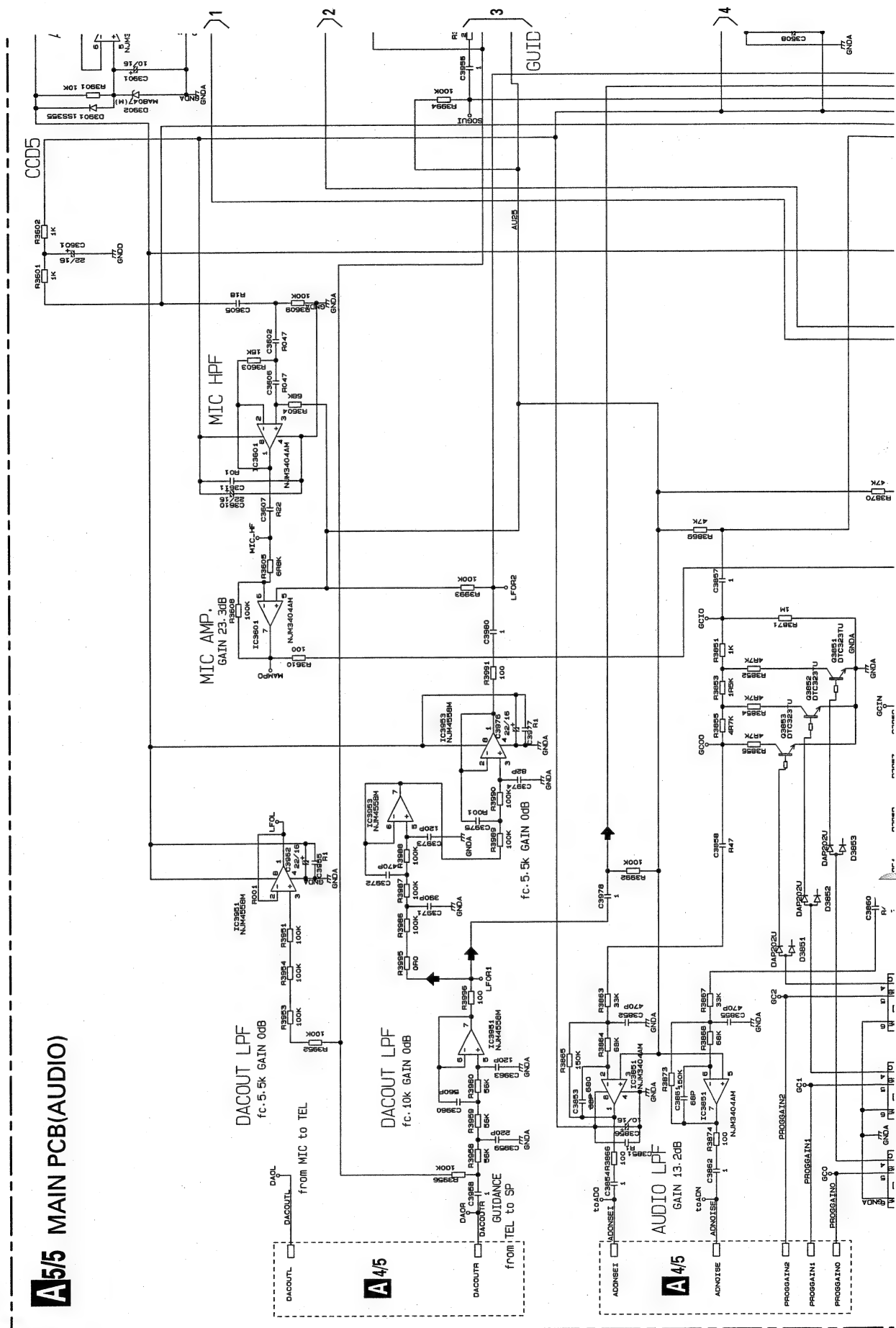


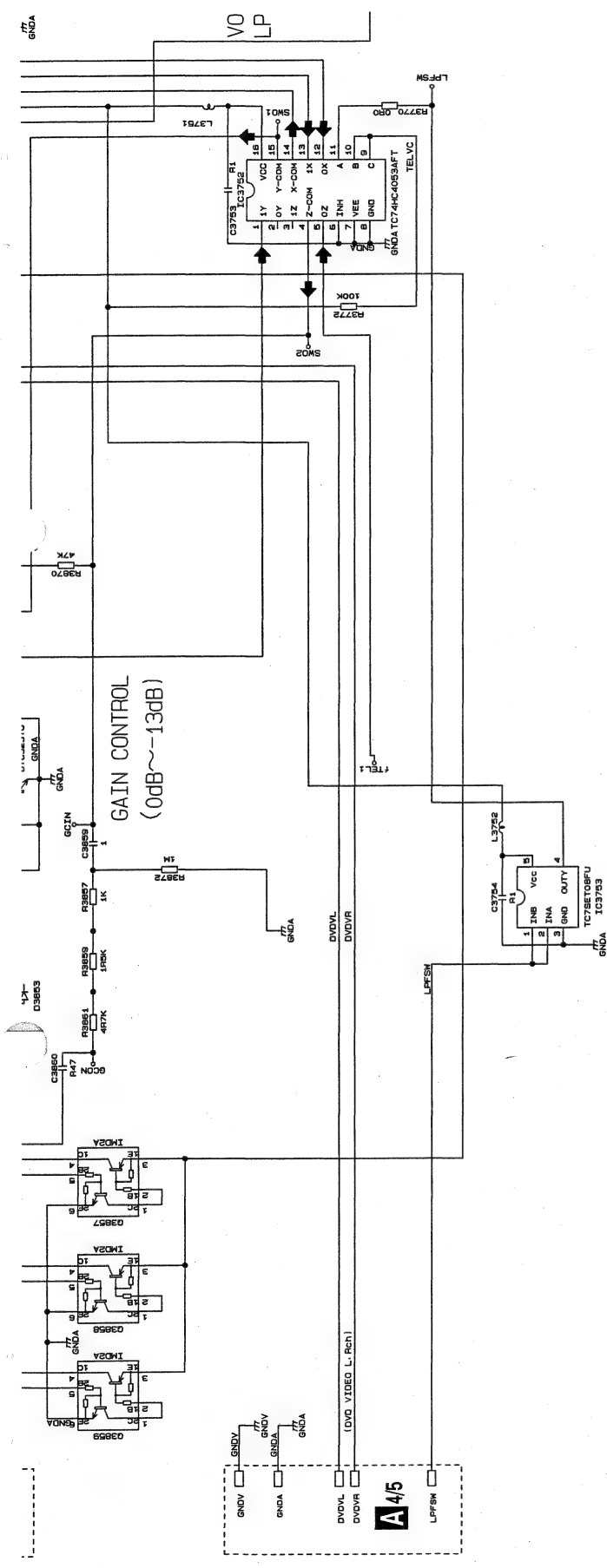












A-a A-b

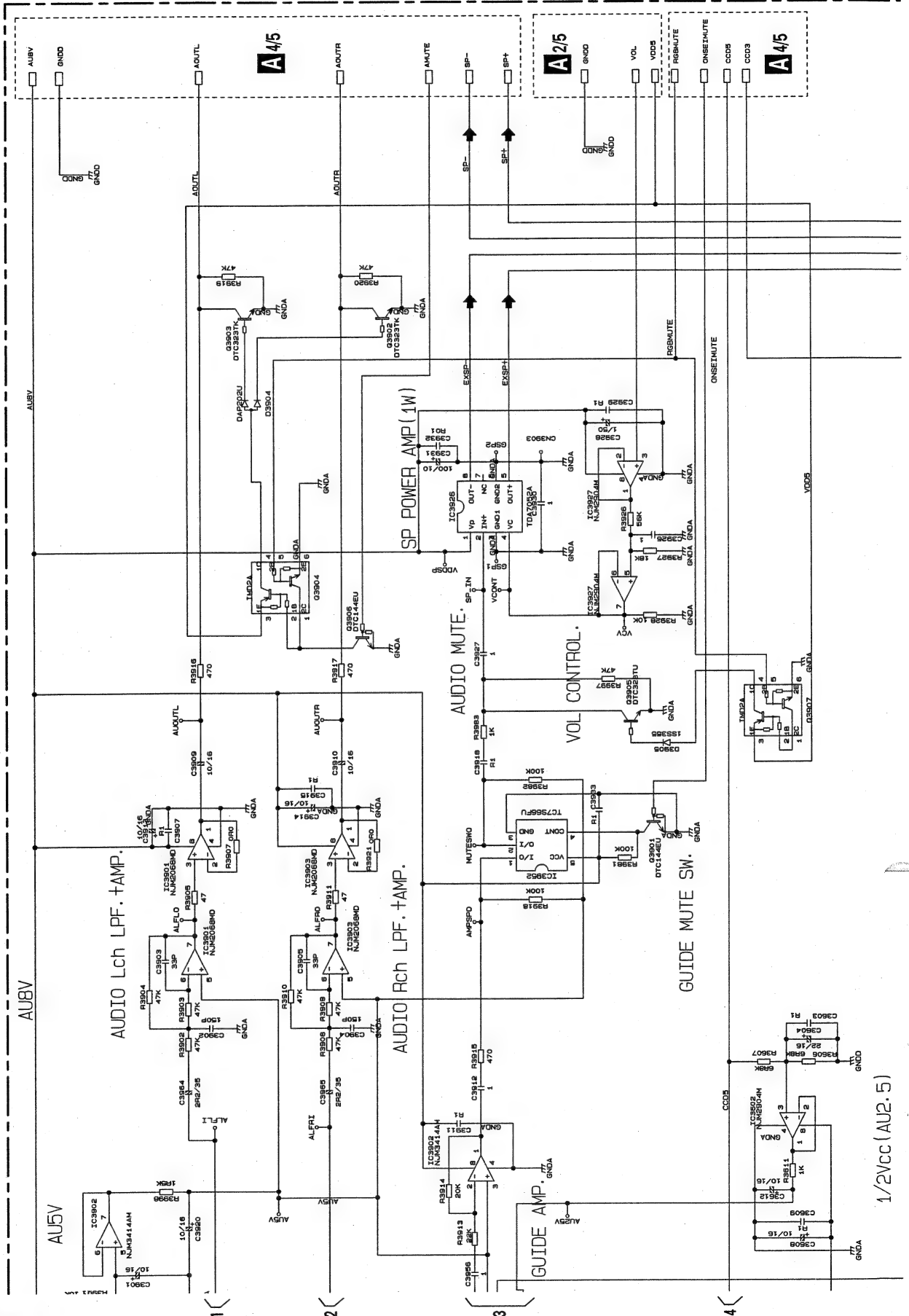
A

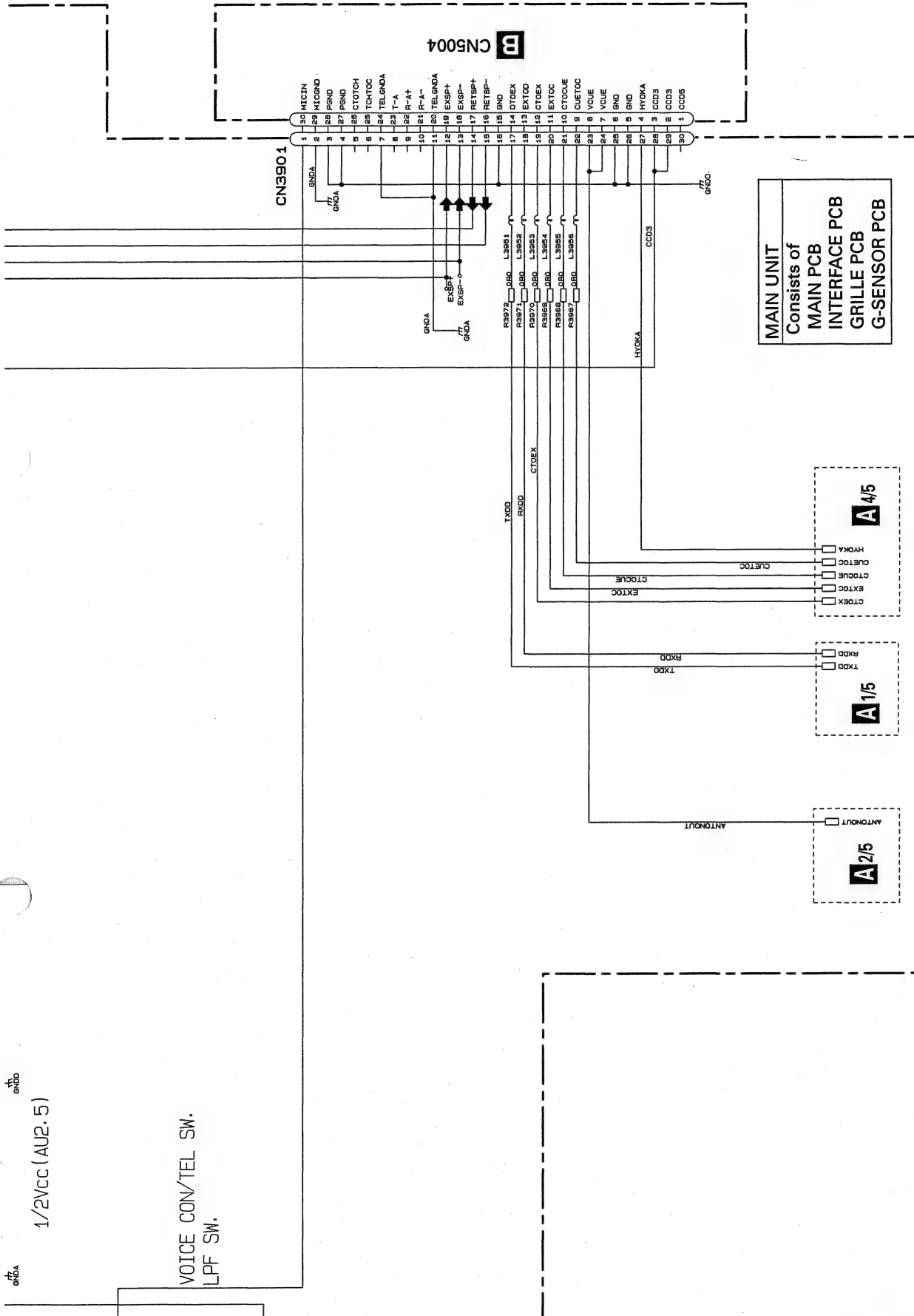
B

C

D

A-a A-b





A-a A-b

<b>MAIN UNIT</b>	Consists of MAIN PCB INTERFACE PCB GRILLE PCB G-SENSOR PCB
------------------	------------------------------------------------------------------------

A 4/5

**A1**

**A**

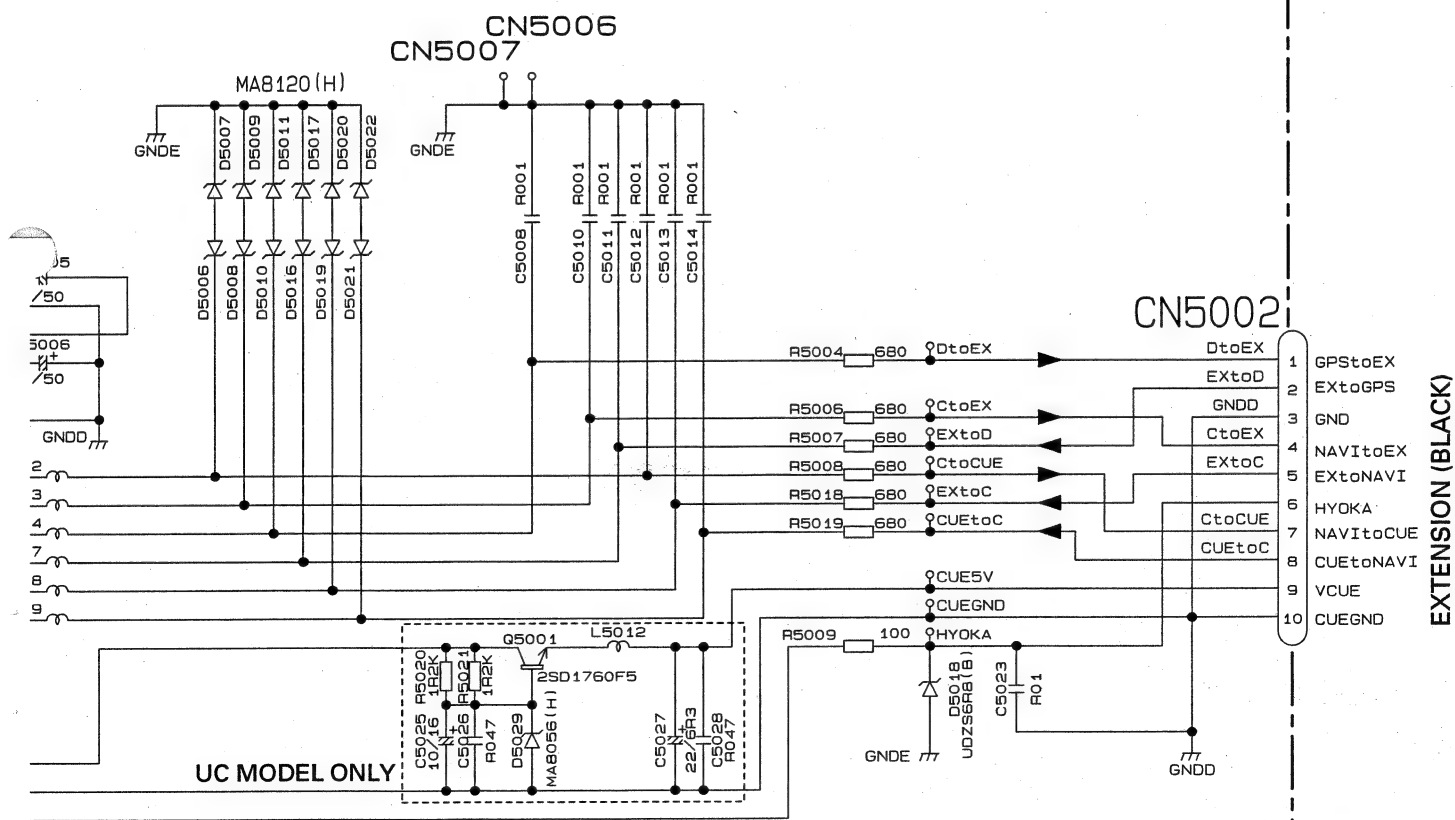
**A-b 5/5**

### 3.8 INTERFACE PCB

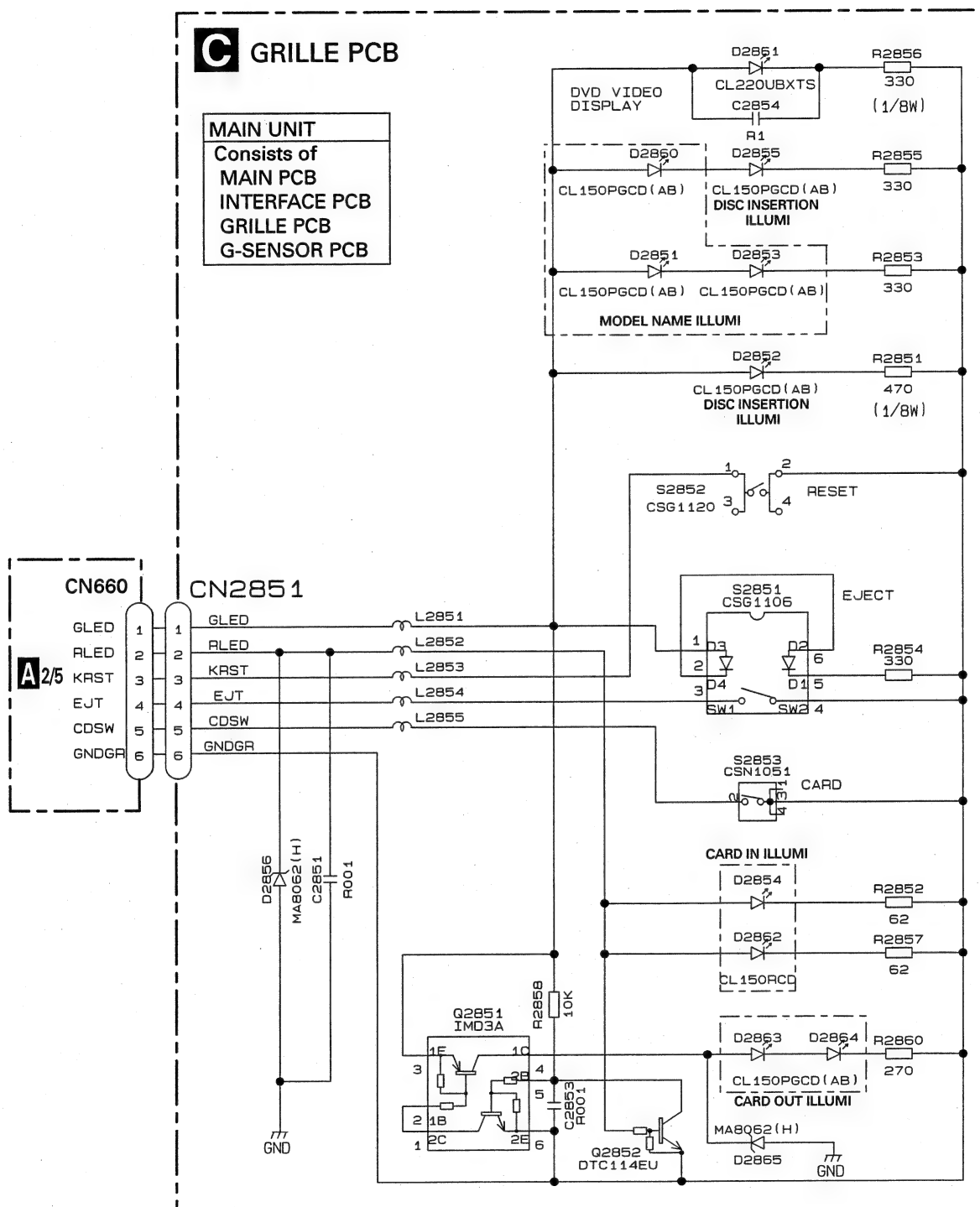


**B** INTERFACE PCB**MAIN UNIT**

Consists of  
MAIN PCB  
INTERFACE PCB  
GRILLE PCB  
G-SENSOR PCB

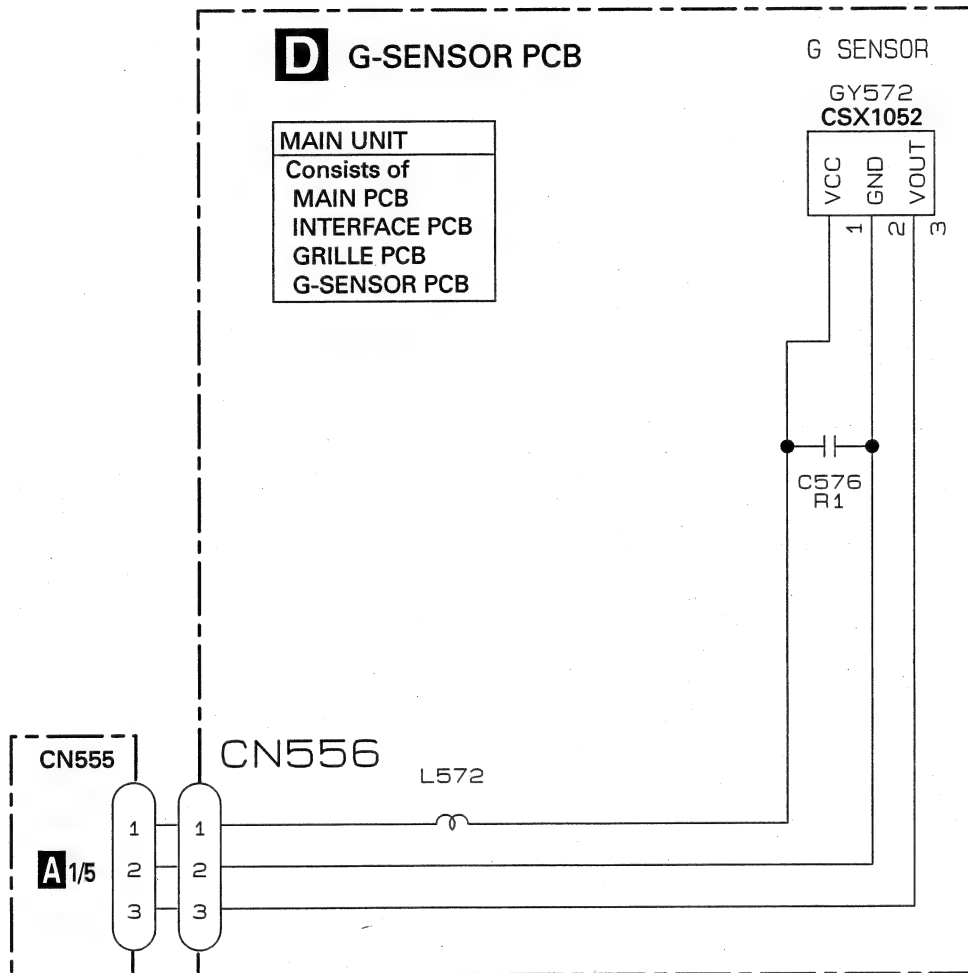


### 3.9 GRILLE PCB





### 3.10 G-SENSOR PCB



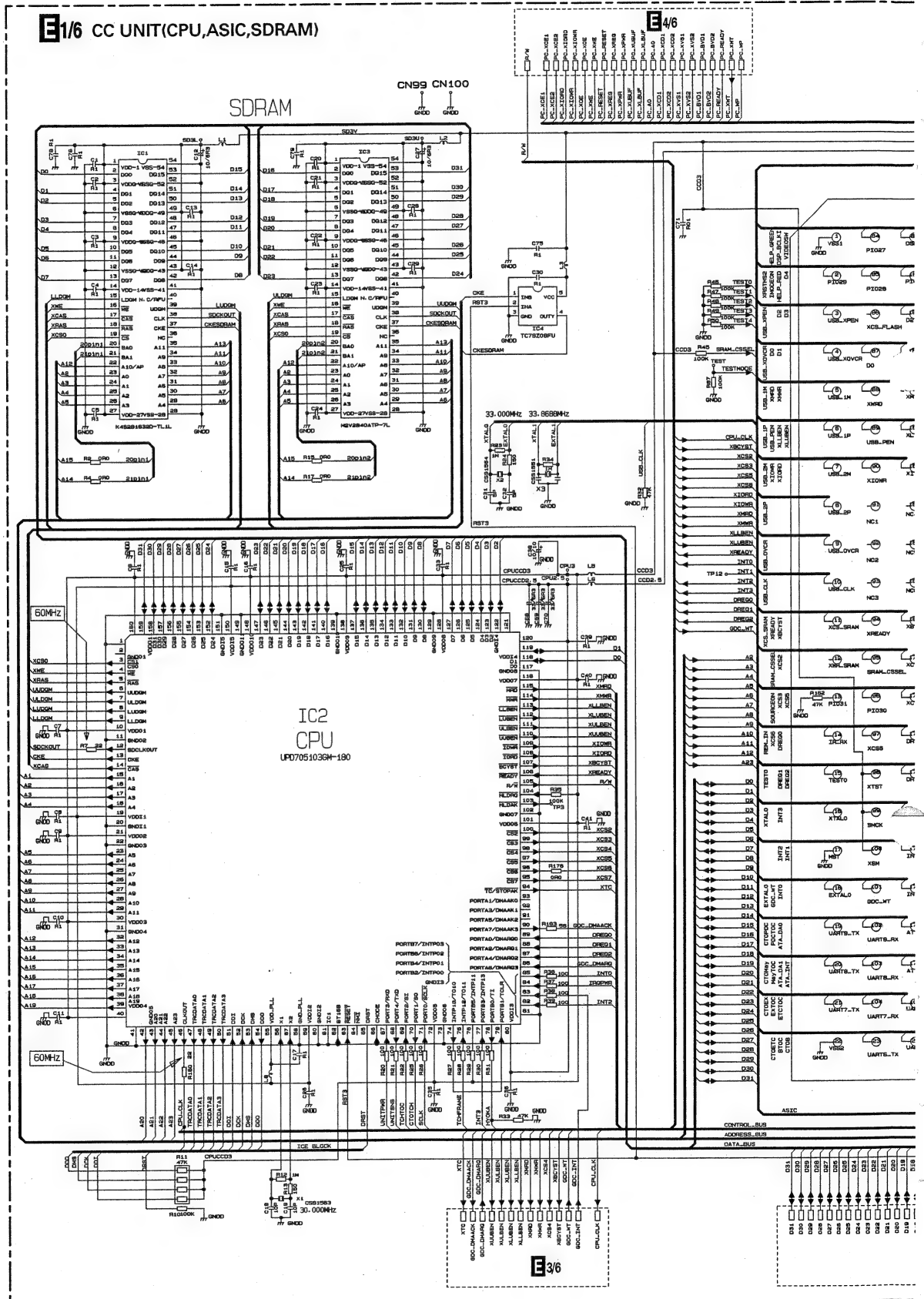
E-a 1/6

A

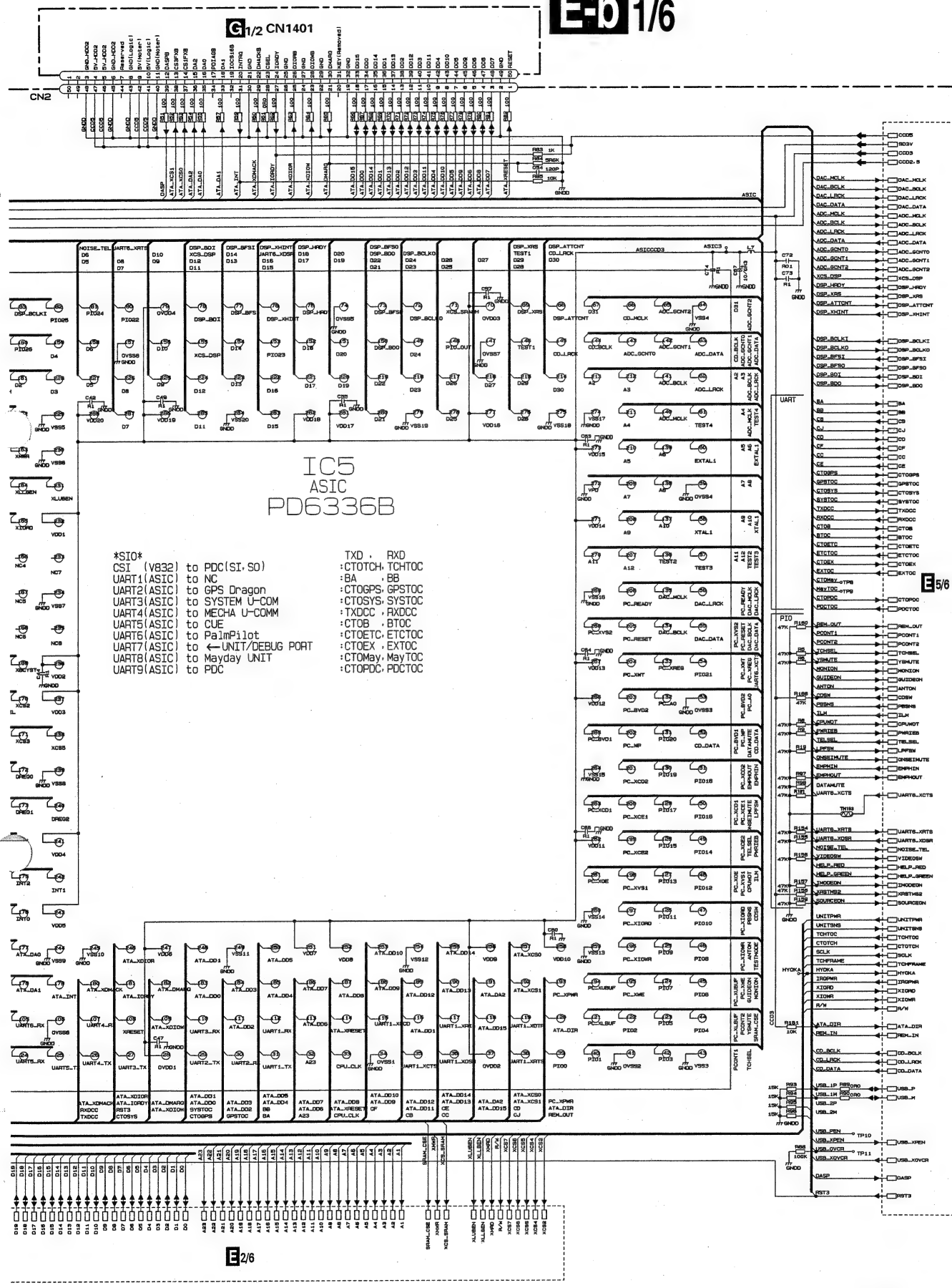
B

C

D



E-b 1/6



A

B

C

D

1

2

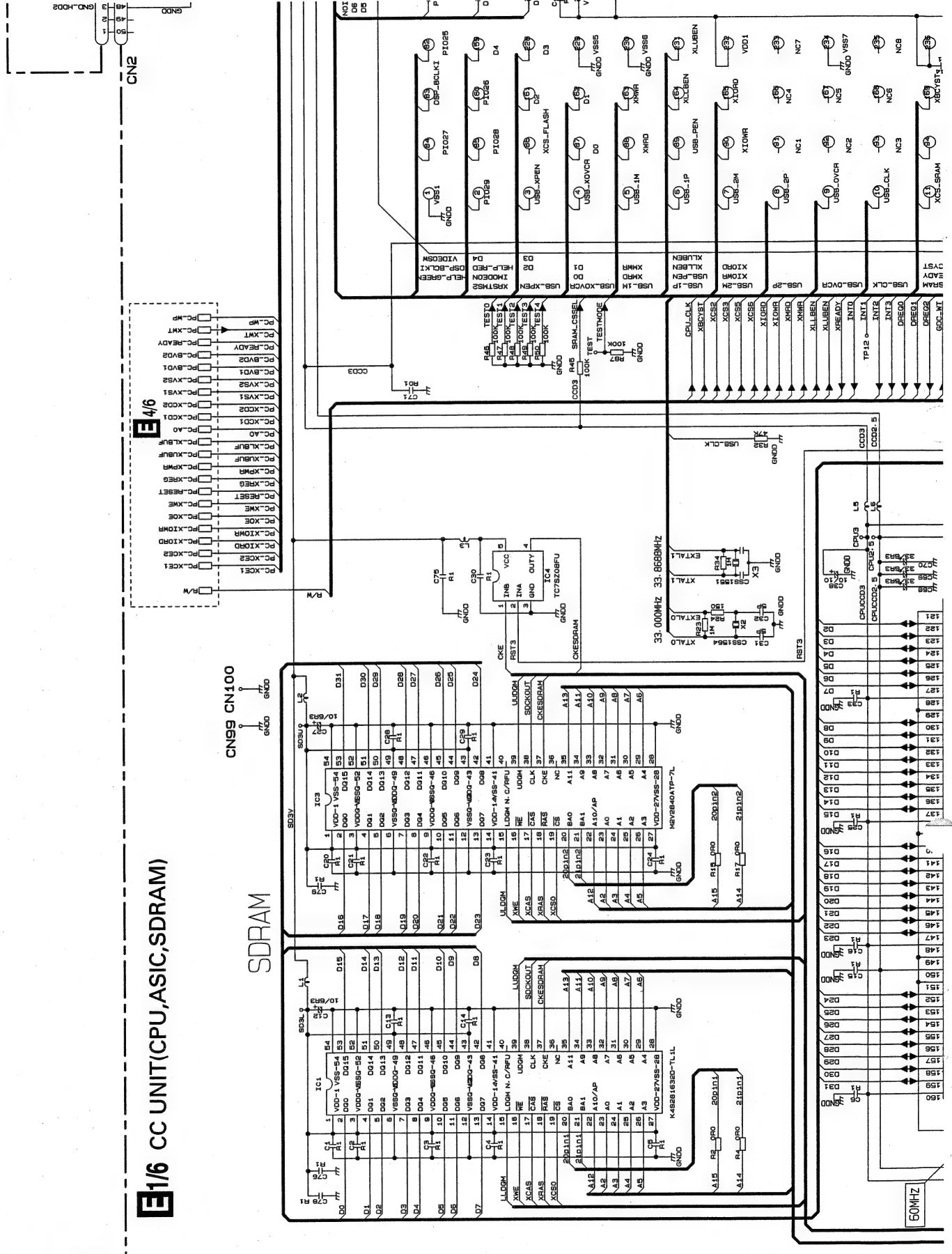
3

4

E-a E-b

E1/6 CC UNIT(CPU,ASIC,SDRAM)

E4/6

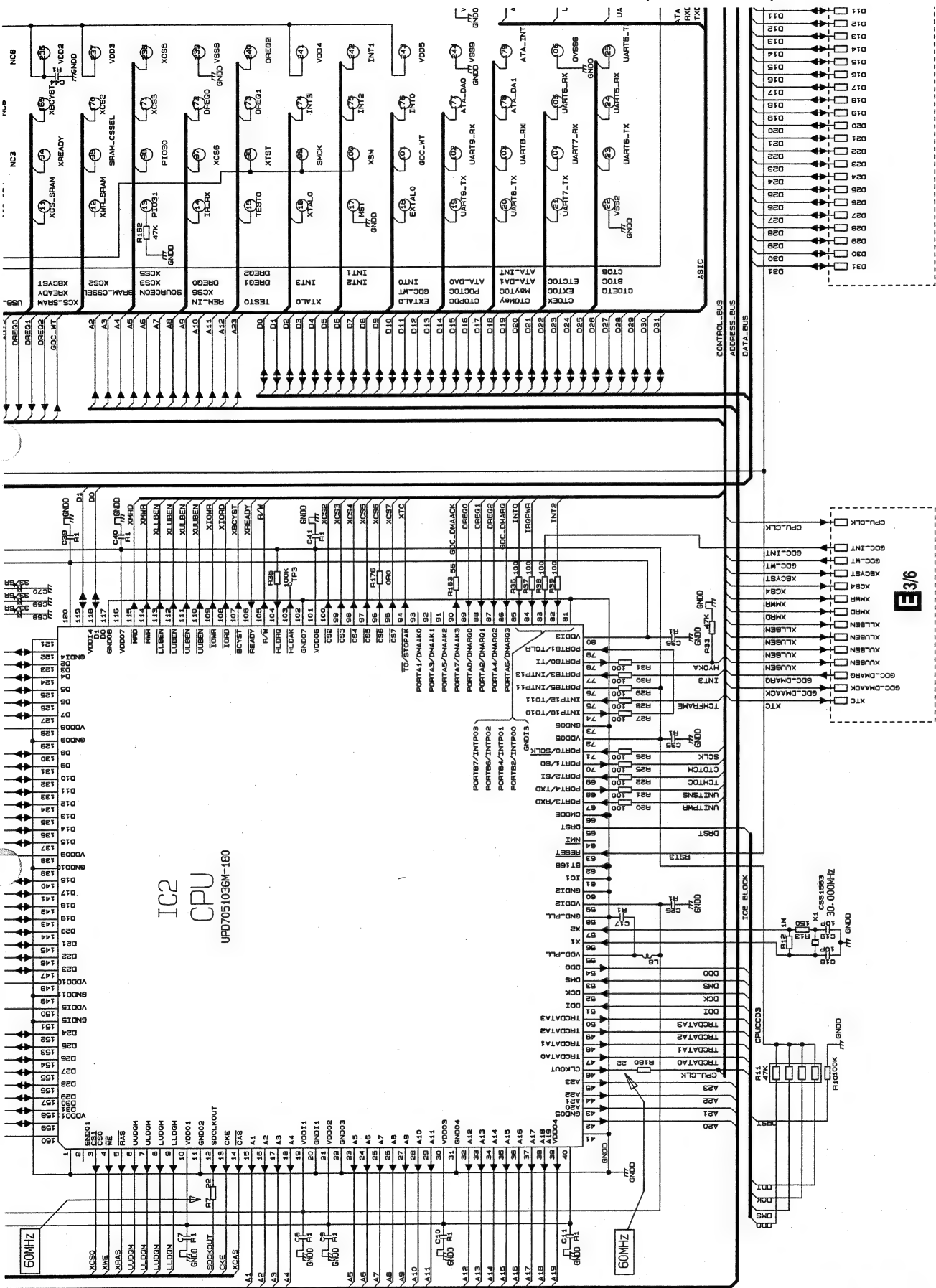


1

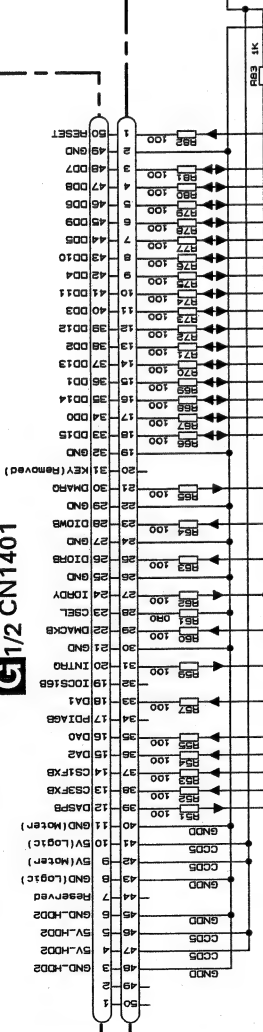
2

3

4



G1/2 CN1401



E-b 1/6

IC5  
ASIC  
PD6336B

- \*SIO\* CSI (V832) to PDC(SI, SO)
- UART1(ASIC) to NC
- UART2(ASIC) to GPS Dragon
- UART3(ASIC) to SYSTEM U-COM
- UART4(ASIC) to MECHA U-COMM
- UART5(ASIC) to CUE
- UART6(ASIC) to PalmPilot
- UART7(ASIC) to ←UNIT/DEBUG PORT
- UART8(ASIC) to Mayday UNIT
- UART9(ASIC) to PDC
- TXD, RXD : CTOTCH, TCHTCC
- :BA, BB : CTOTCH, GPSTOC
- :CTOGPS, GPSTOC
- :CTOSYS, SYSTOC
- :TXDCC, RXDCC
- :CTOB, BTCC
- :CTOETC, ETCTOC
- :CTOEX, EXTIOC
- :CTOMAY, MayTCC
- :TOPDC, PDCIOC

A

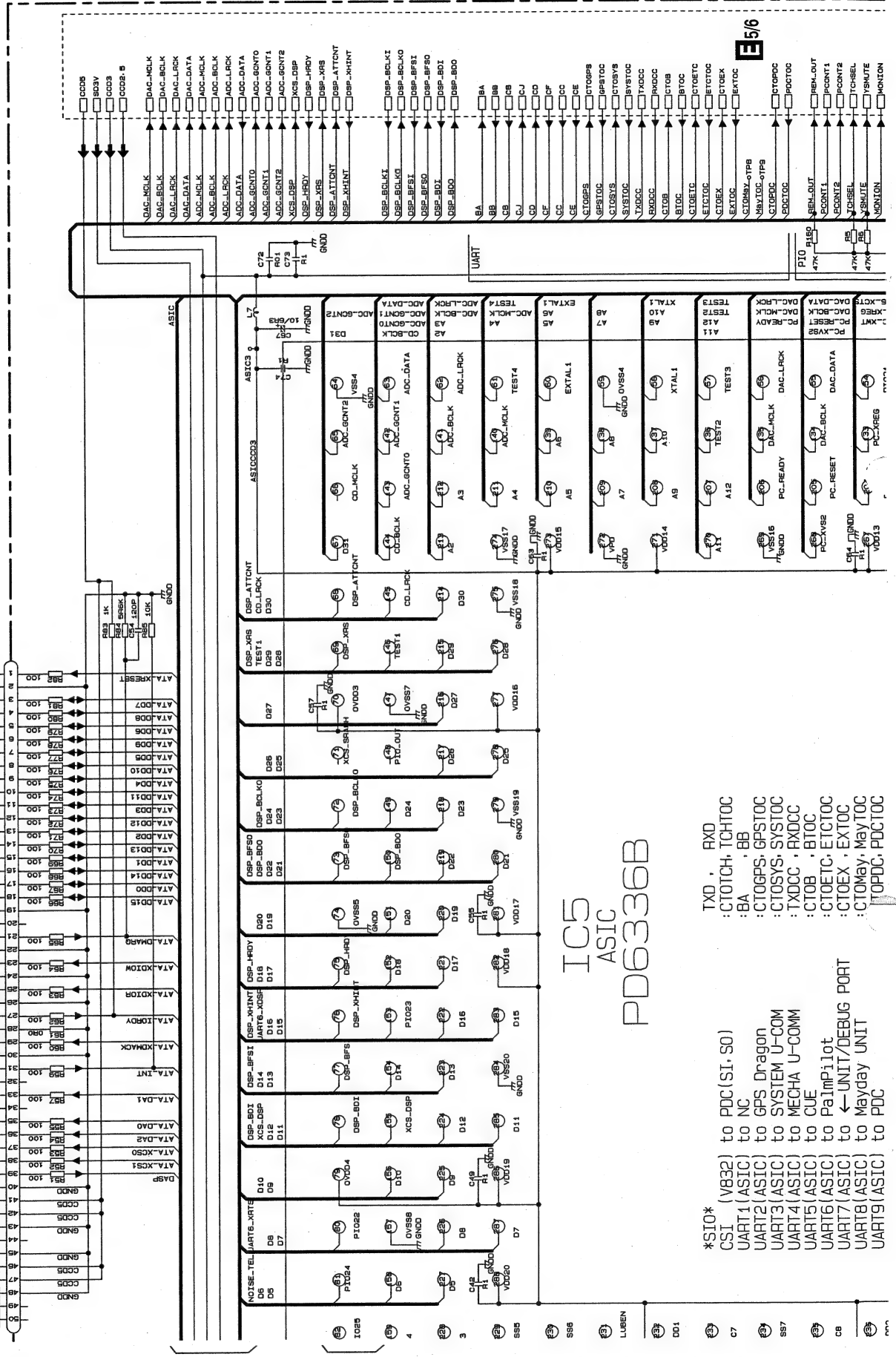
B

C

D

E-a E-b

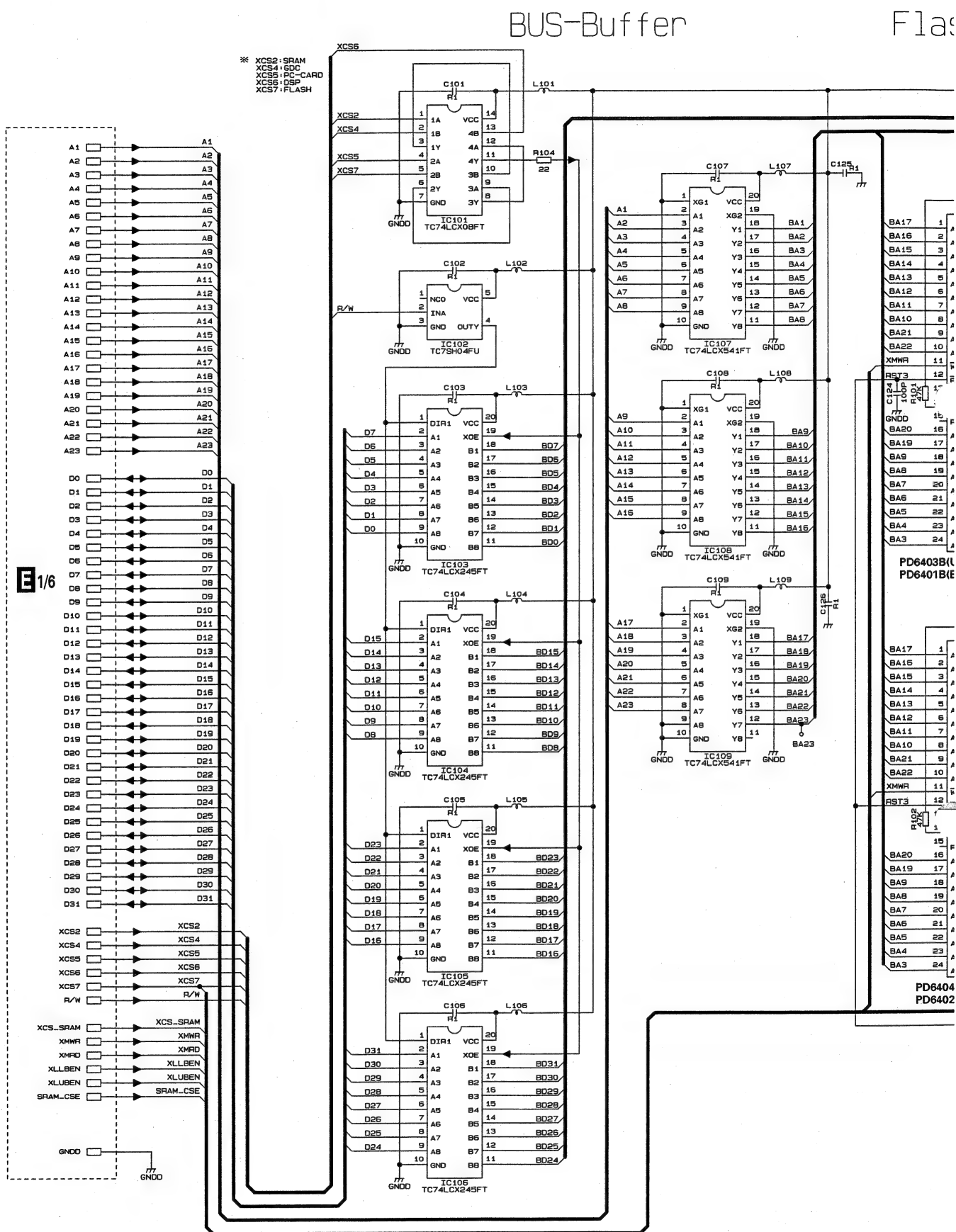
E5/6







### 3.12 CC UNIT 2/6 (ROM, SRAM, BUS-BUFFER)

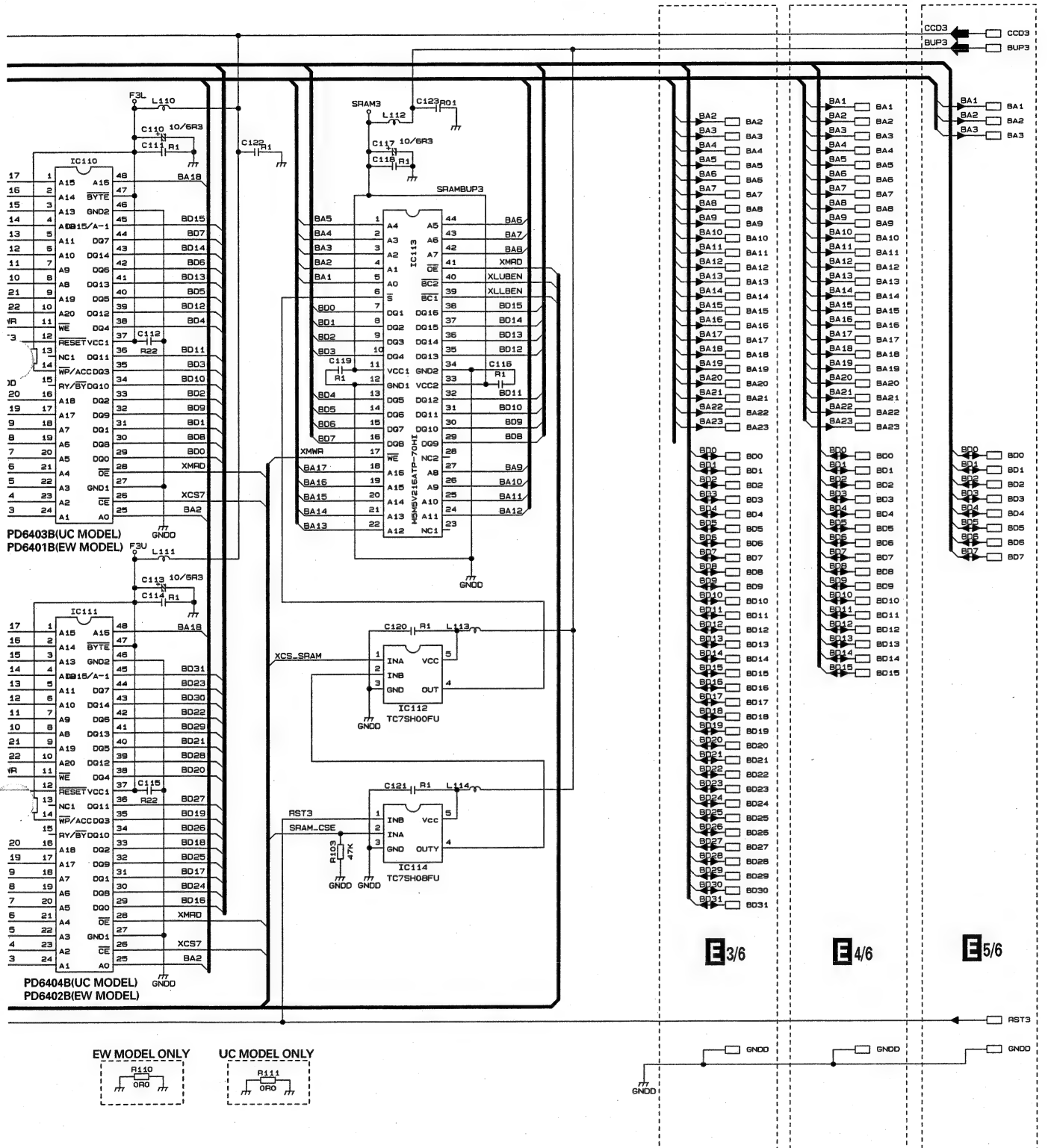




FlashROM

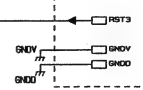
SRAM

E2/6 CC UNIT(ROM,SRAM,BUS-BUFFER)



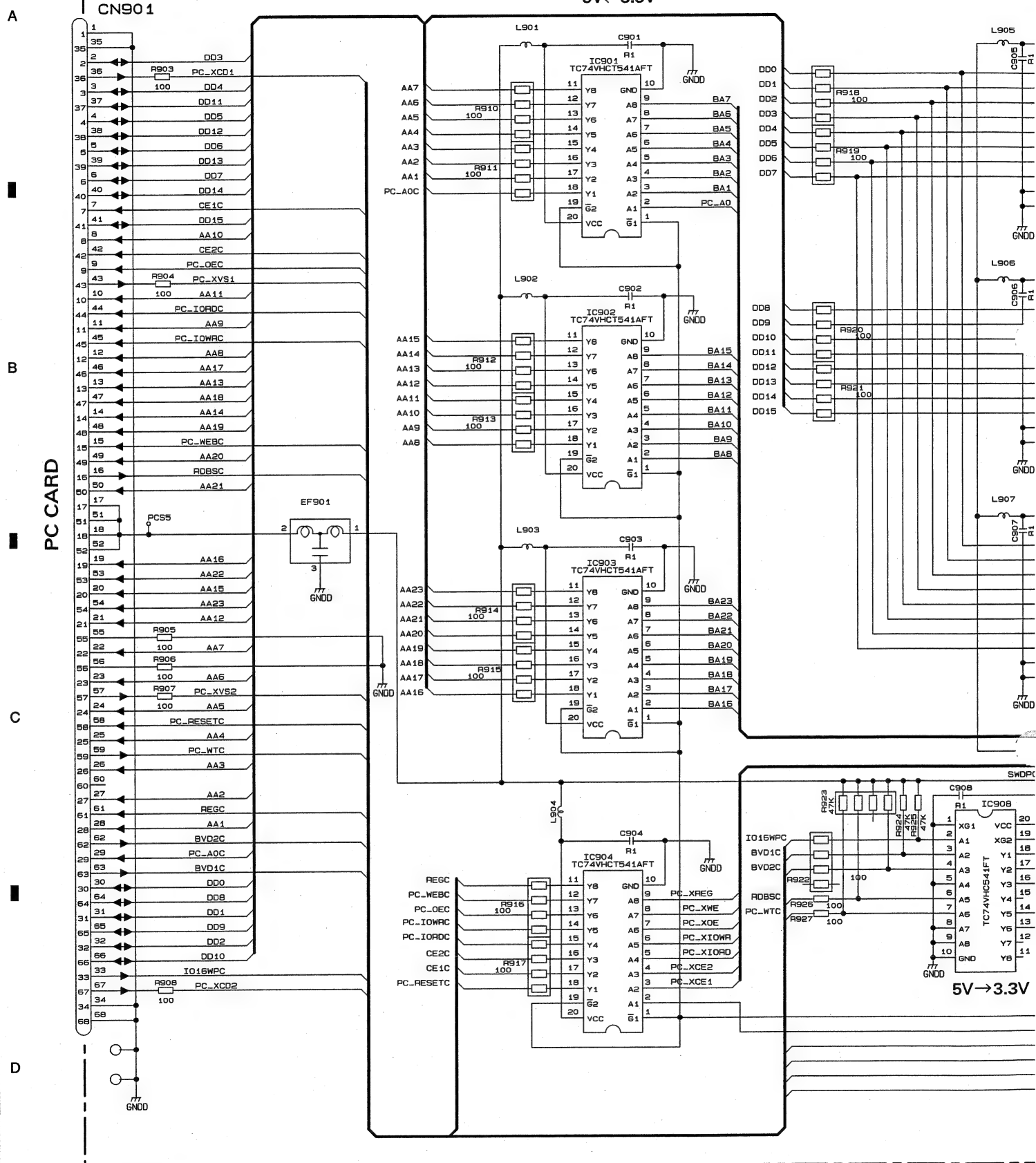
### 3.13 CC UNIT 3/6 (GRAPHIC)



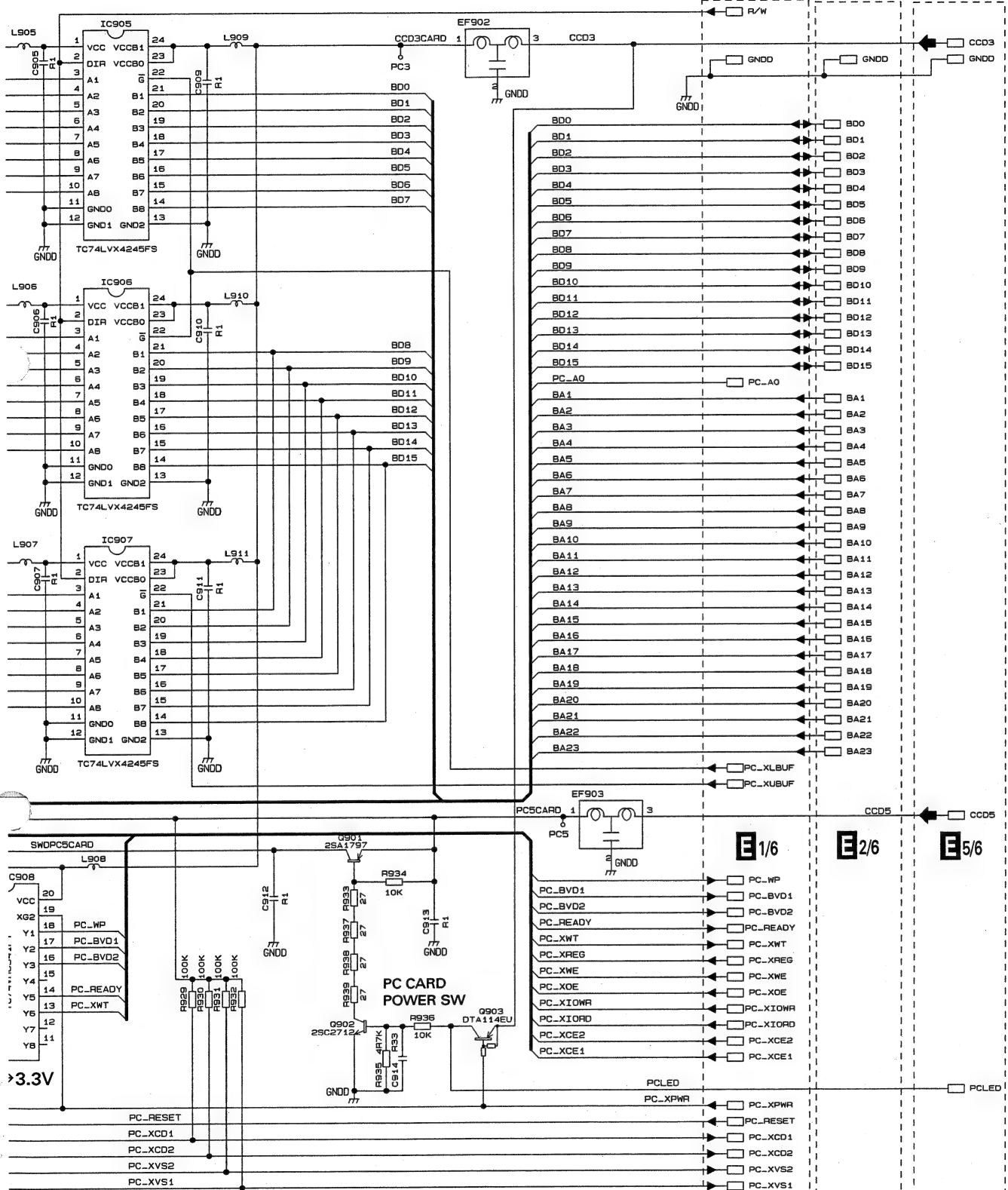


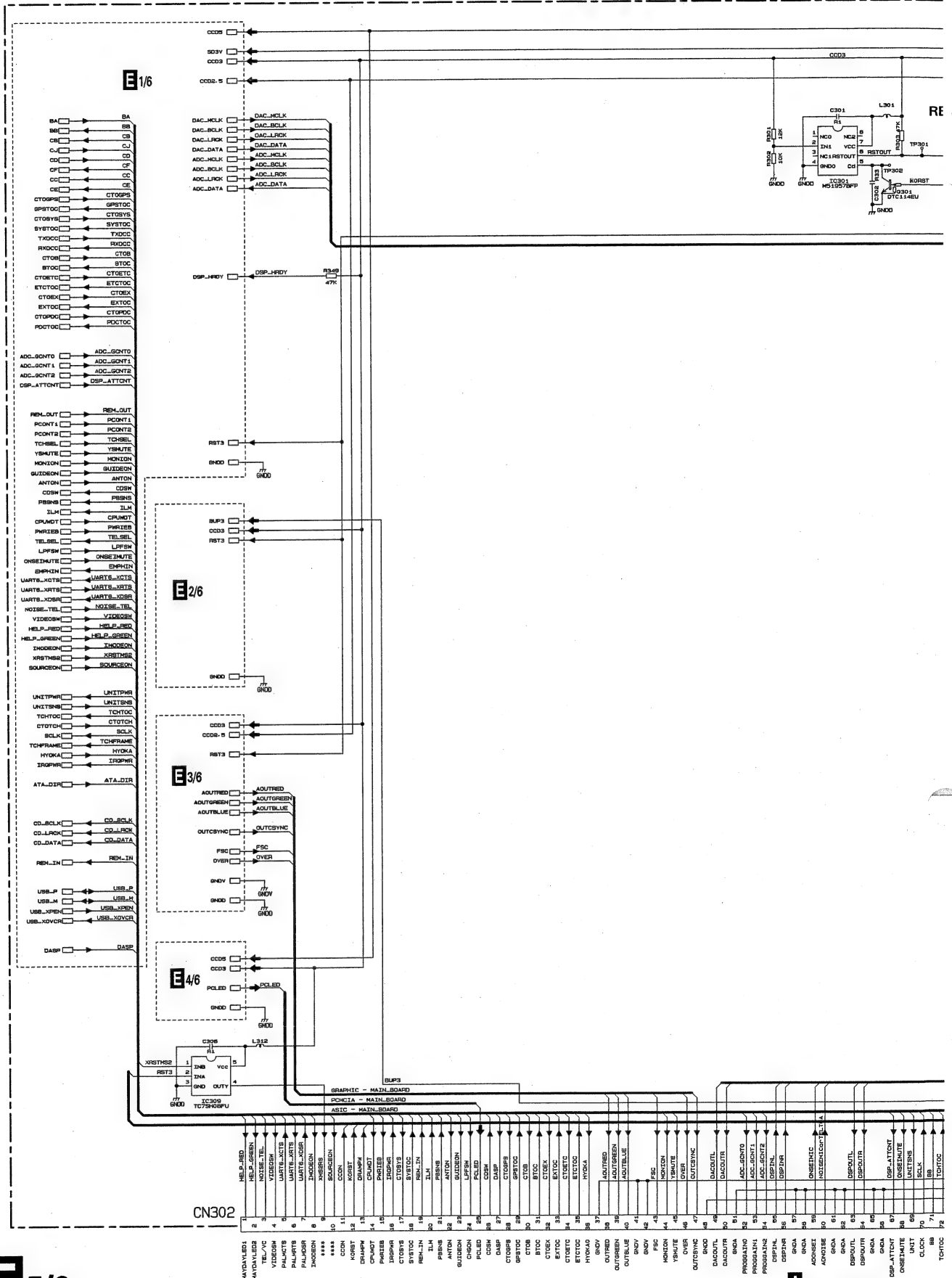
CN90 1

**5V←3.3V**



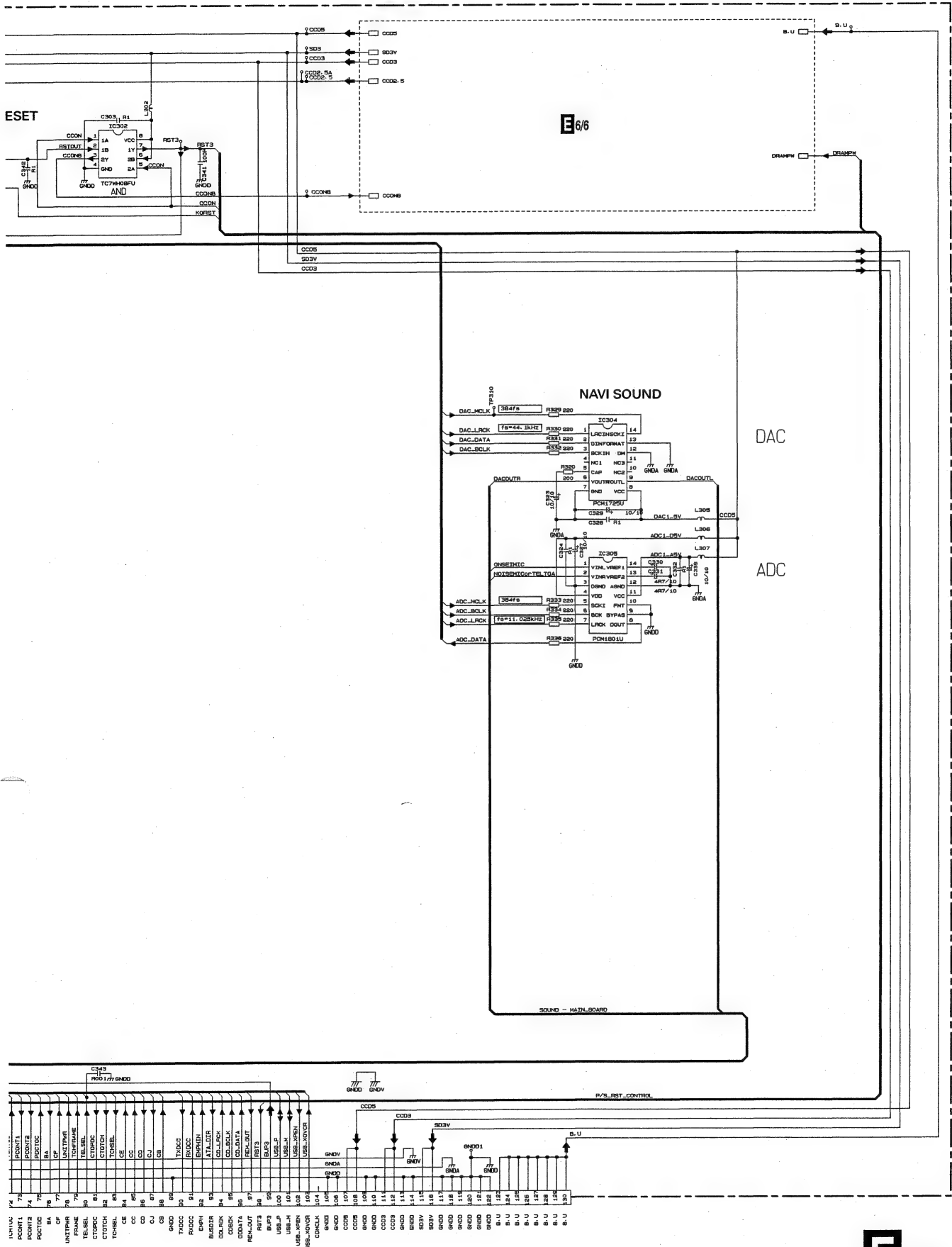
5V↔3.3V

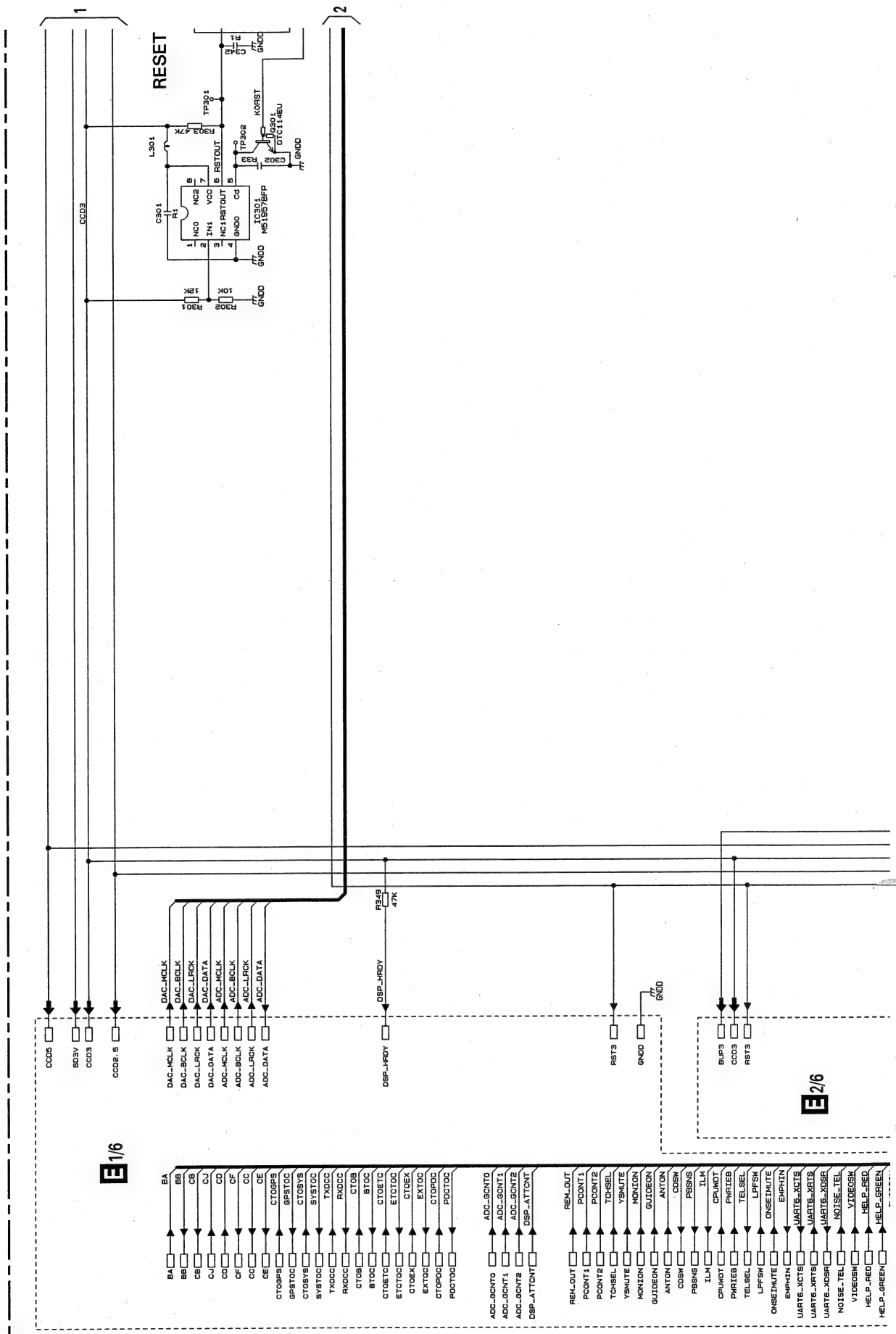




E-b 5/6

E 5/6 CC UNIT(DSP,I/F CONNECTOR)

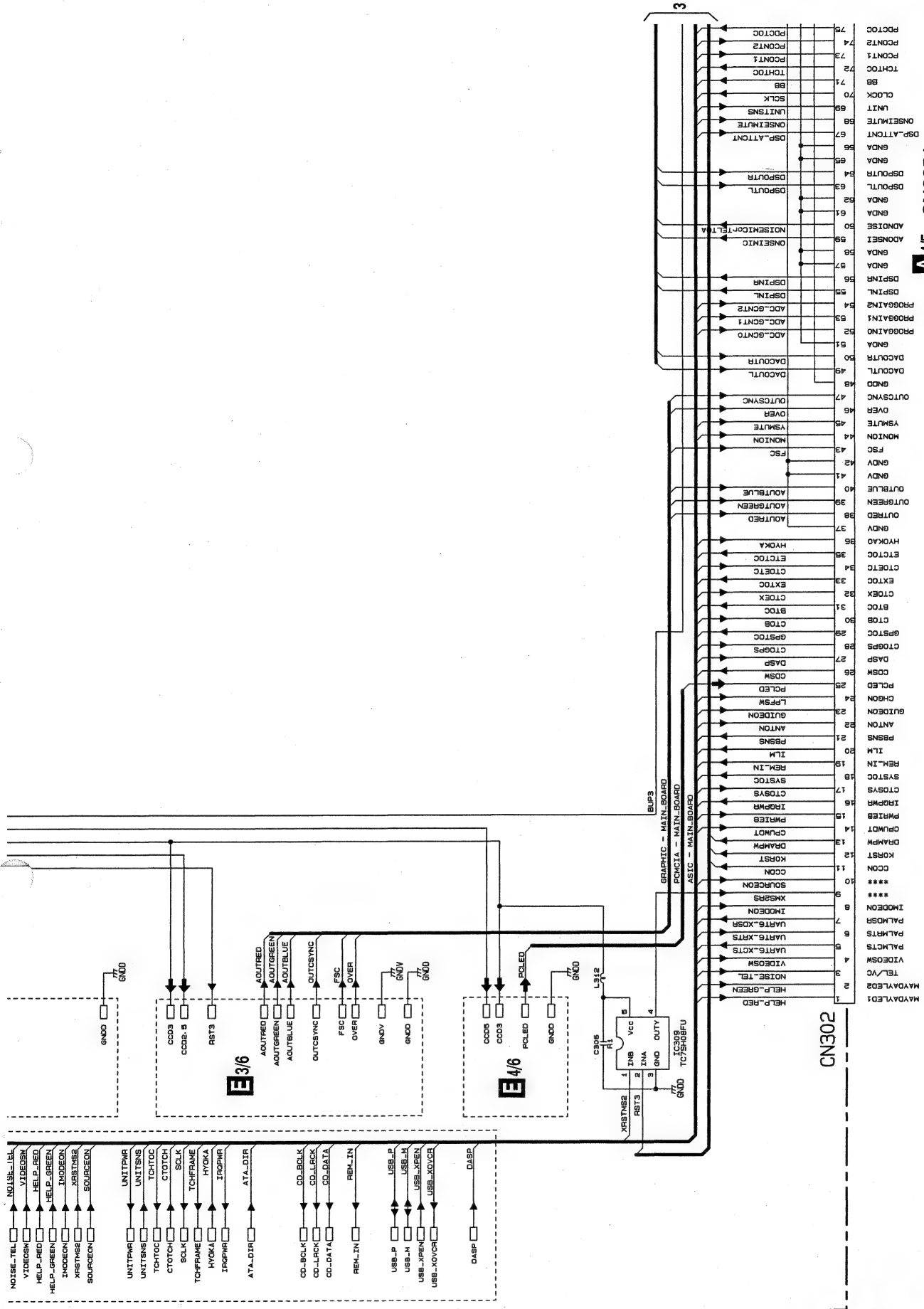






A4/5 CN3254

E-3 E-b



A

B

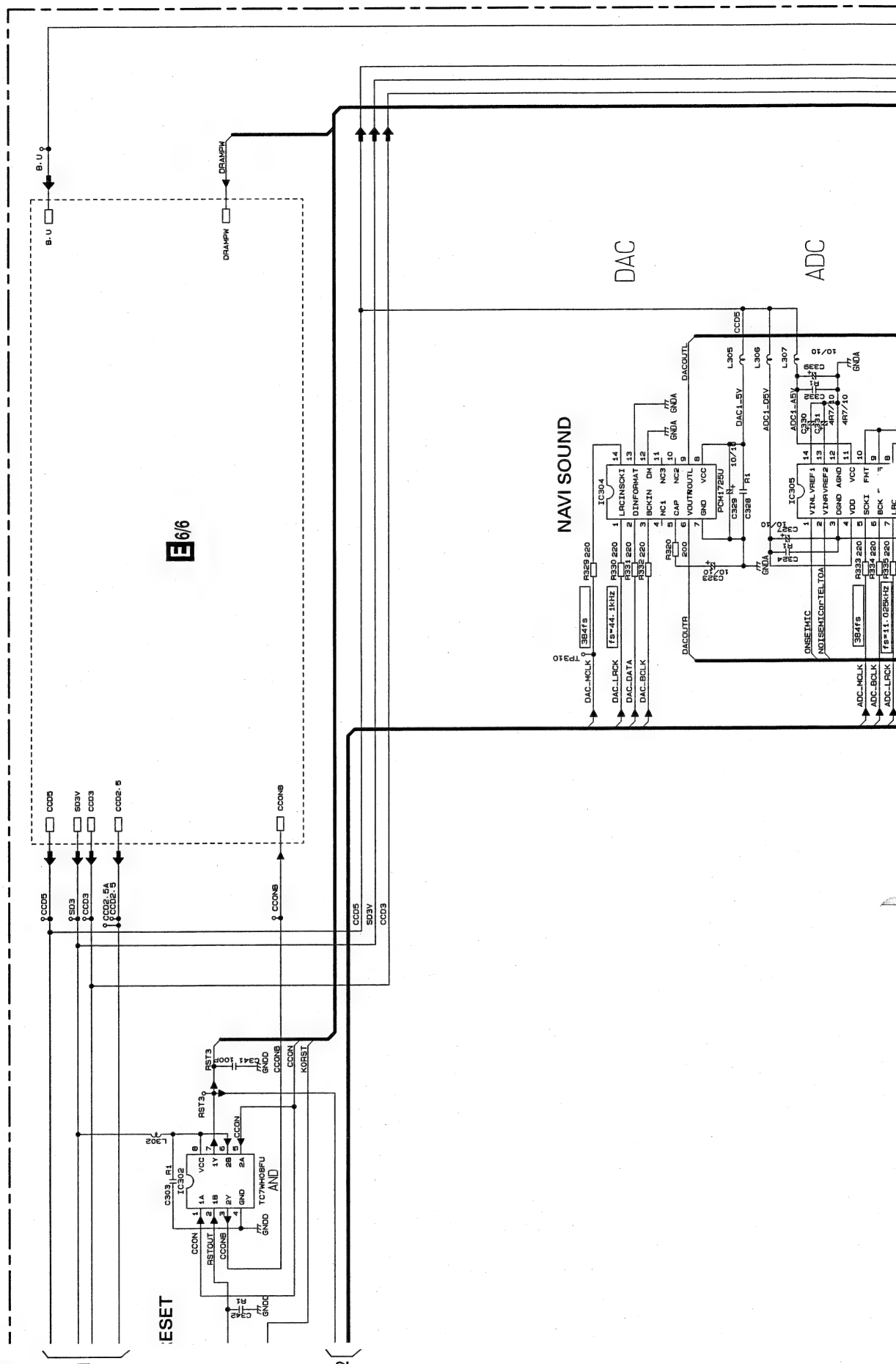
C

D

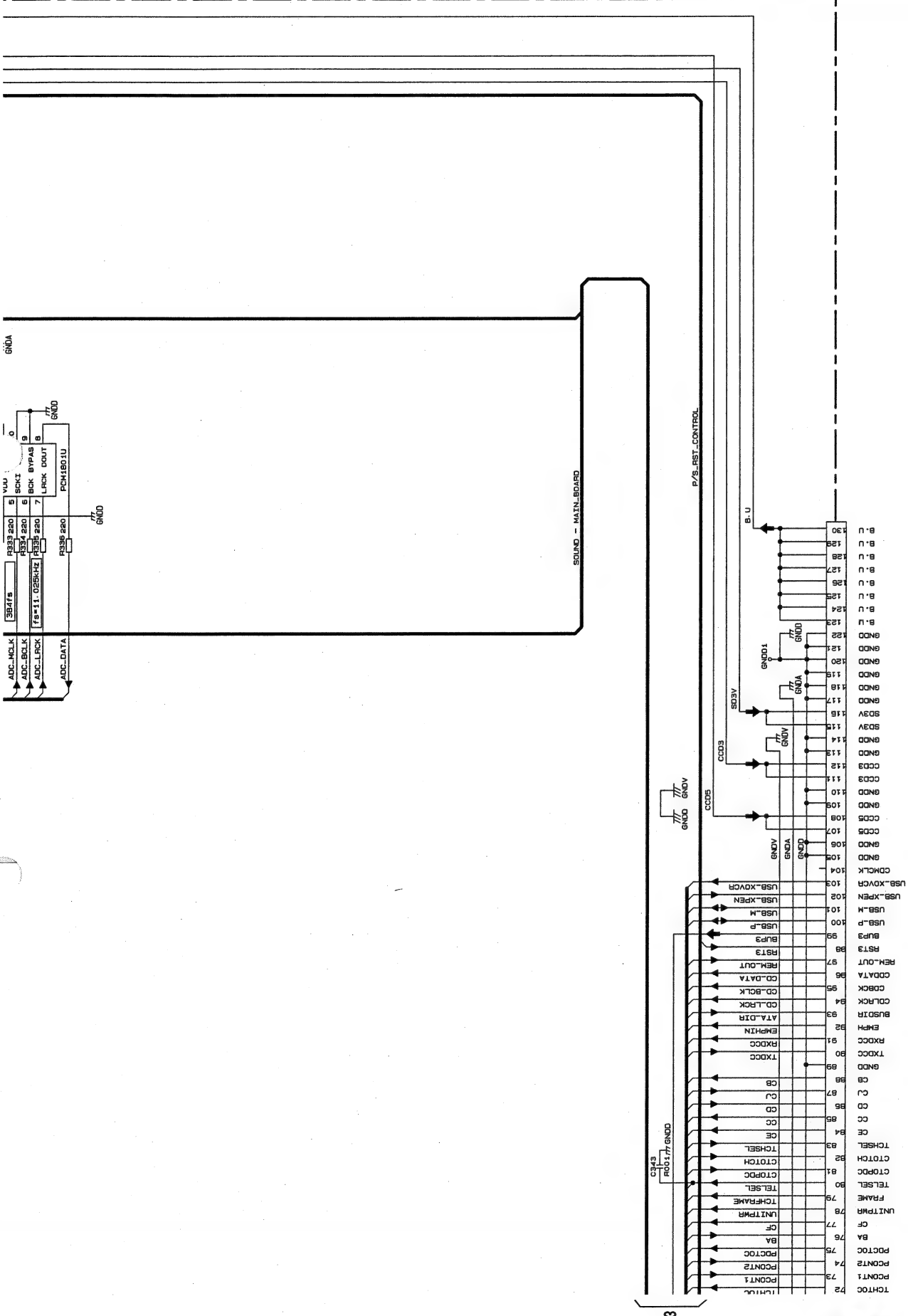
E-a E-b

E5/6 CC UNIT(DSP,I/F CONNECTOR)

72 E-b 5/6

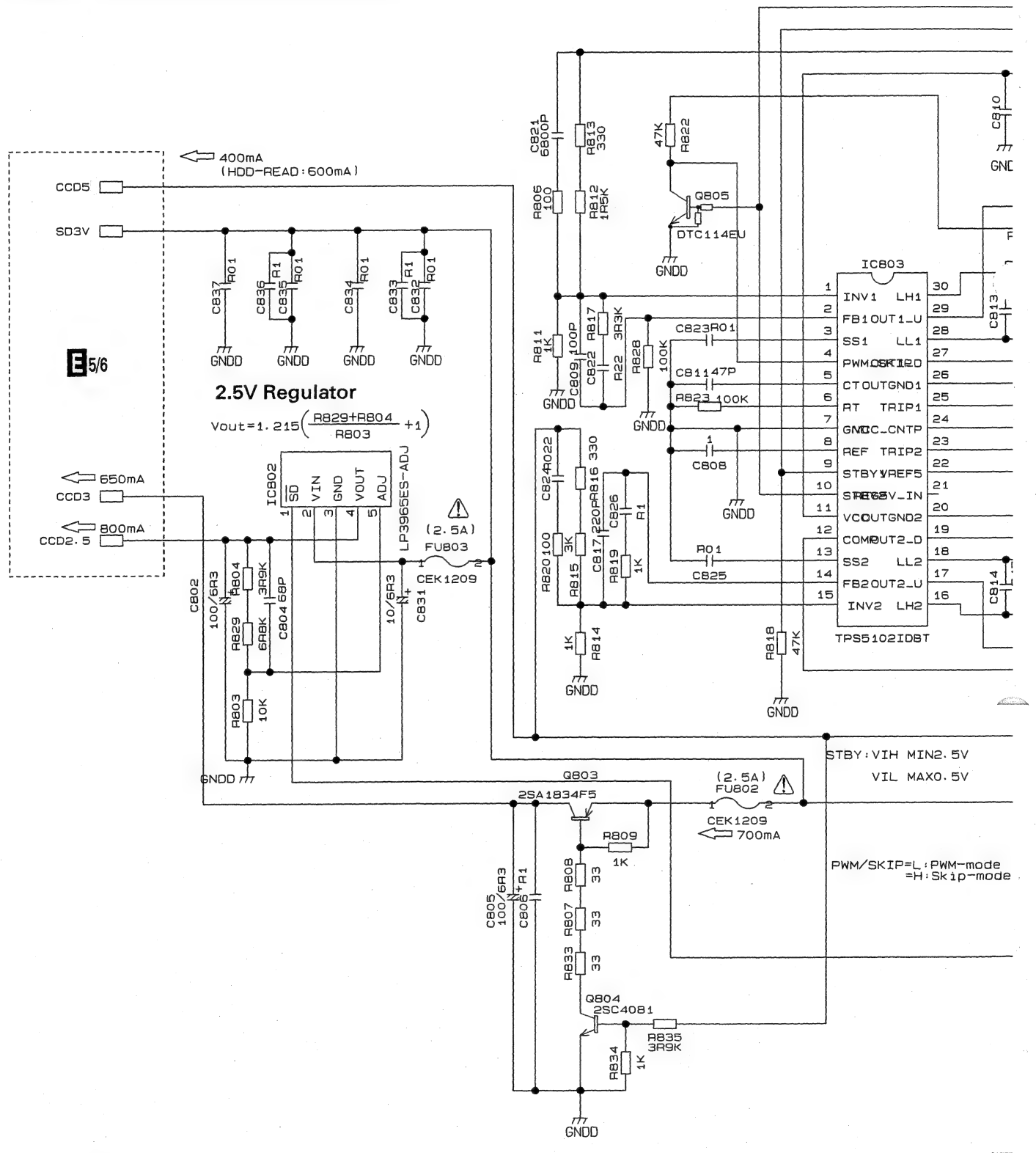


E-a E-b

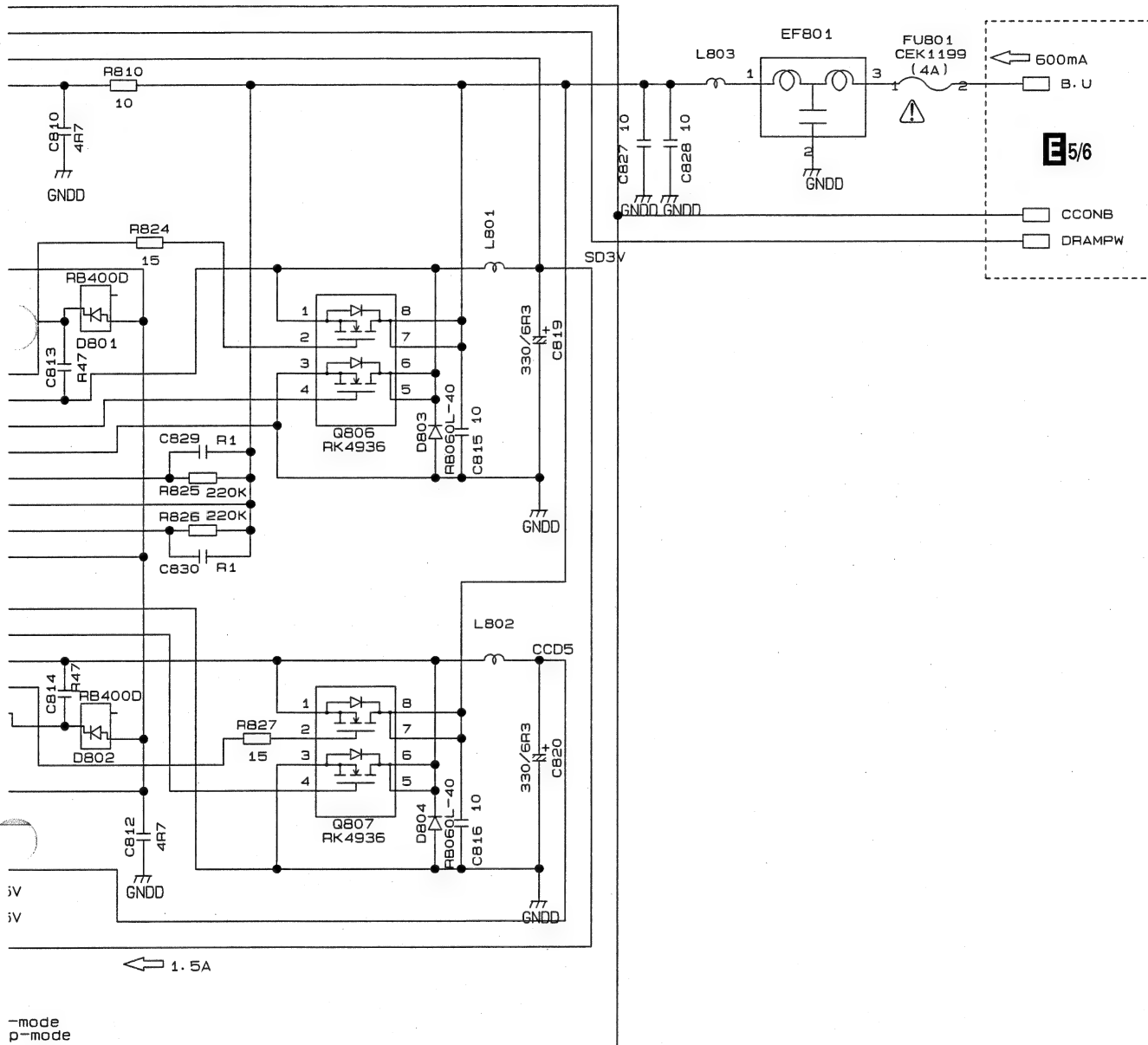


### 3.16 CC UNIT 6/6 (CC POWER SUPPLY)

#### E6/6 CC UNIT(CC POWER SUPPLY)

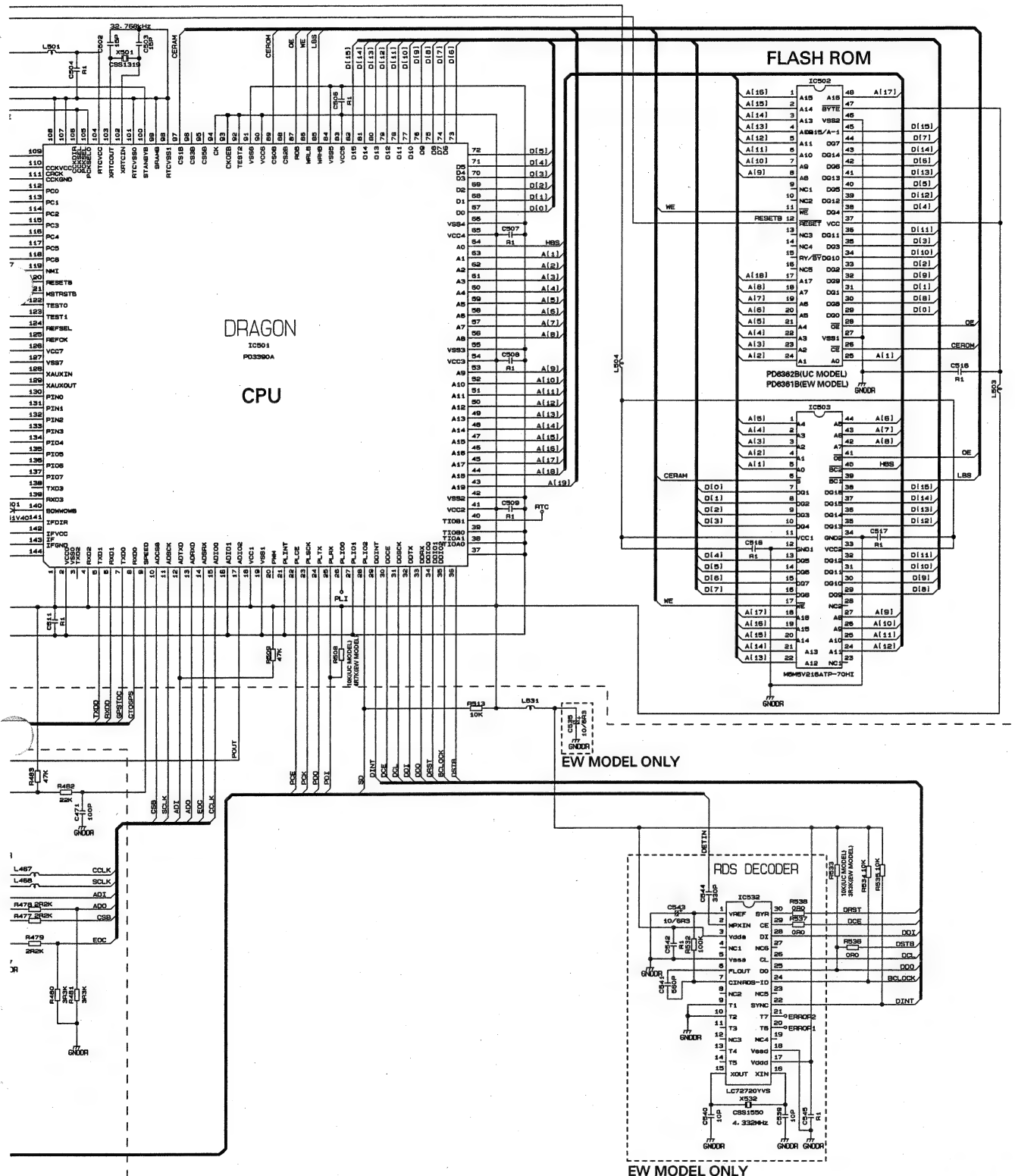


# DC/DC Converter $\begin{matrix} 3.3V \\ 5V \end{matrix}$ 2ch





# **F** GPS UNIT









1

2

3

4

A

B

C

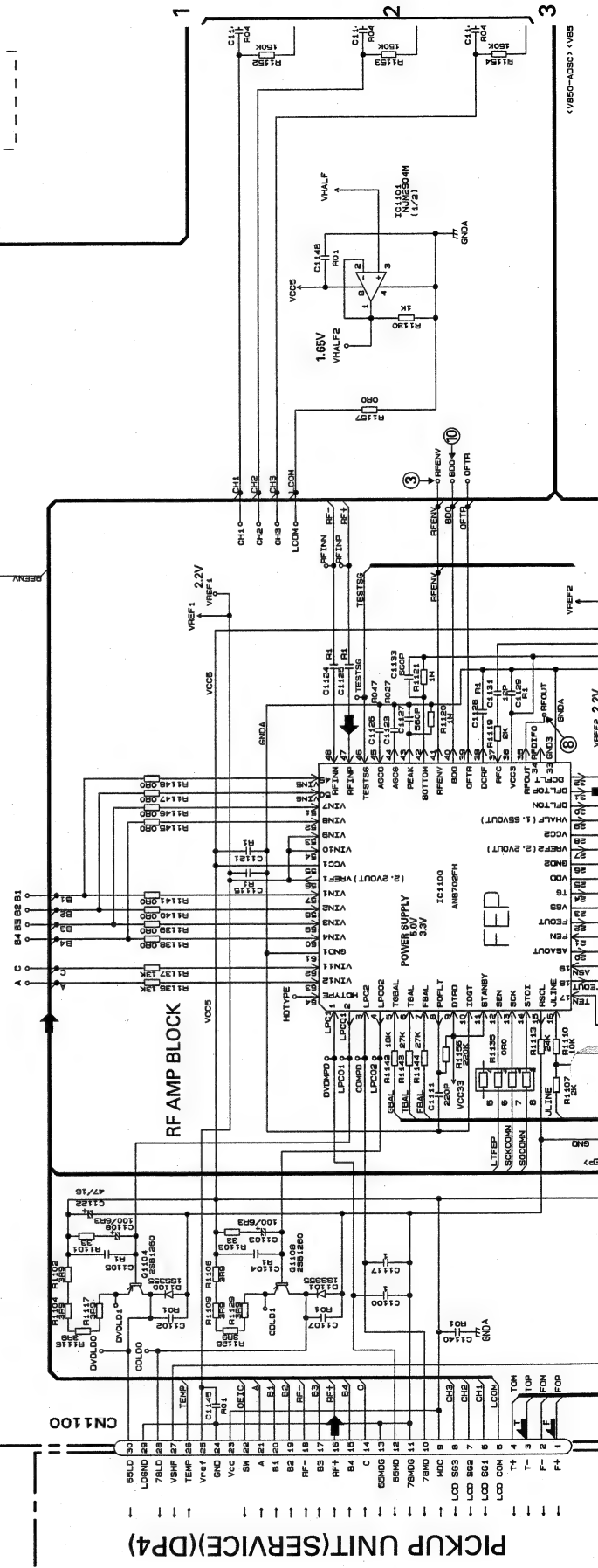
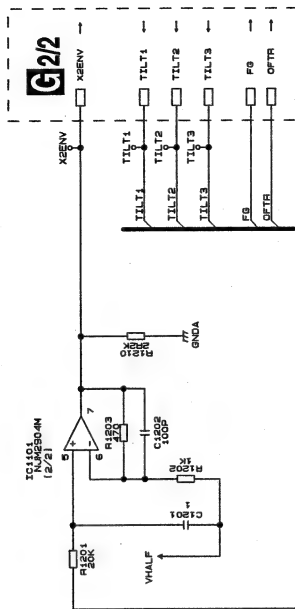
D

G-a G-b

SERVO-CPU IF

G1/2 DVD CORE UNIT V(FRONT END)

RF SIGNAL  
↑  
FOCUS SERVO LINE  
↑  
TRACKING SERVO LINE  
↑  
CARRIAGE SERVO LINE  
↑  
SPINDLE SERVO LINE  
↑  
CLK



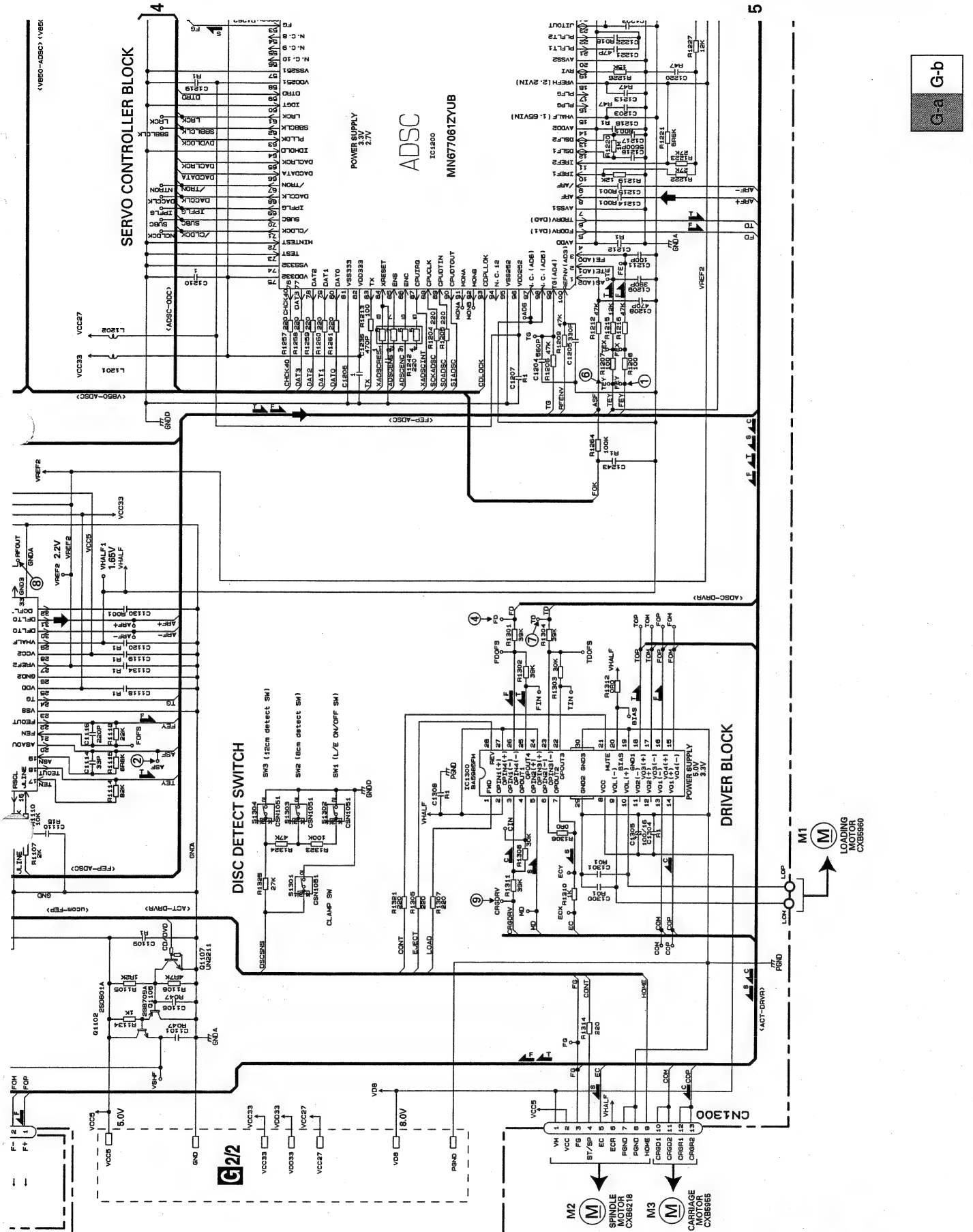
G-a 1/2

1

2

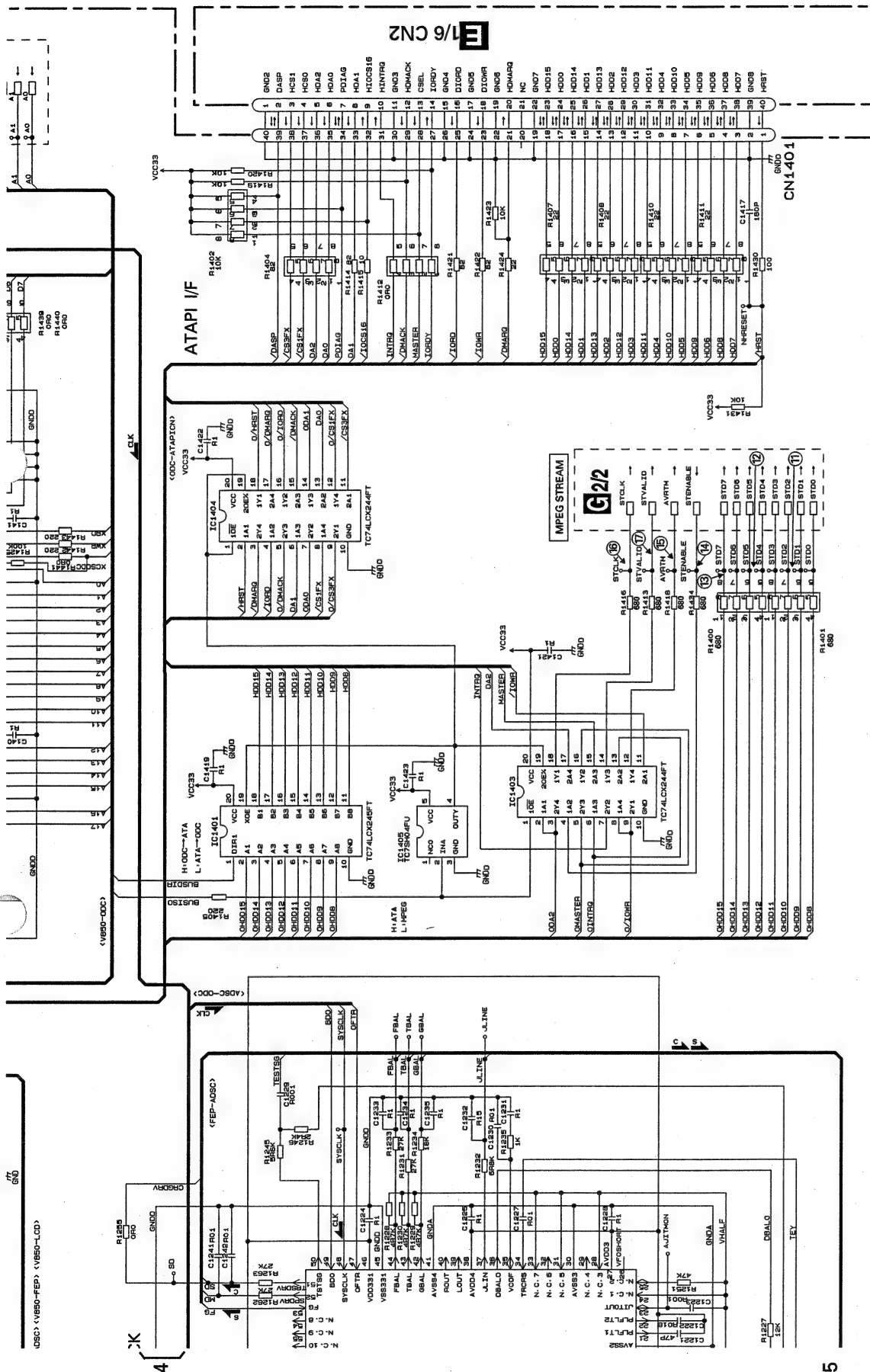
3

4

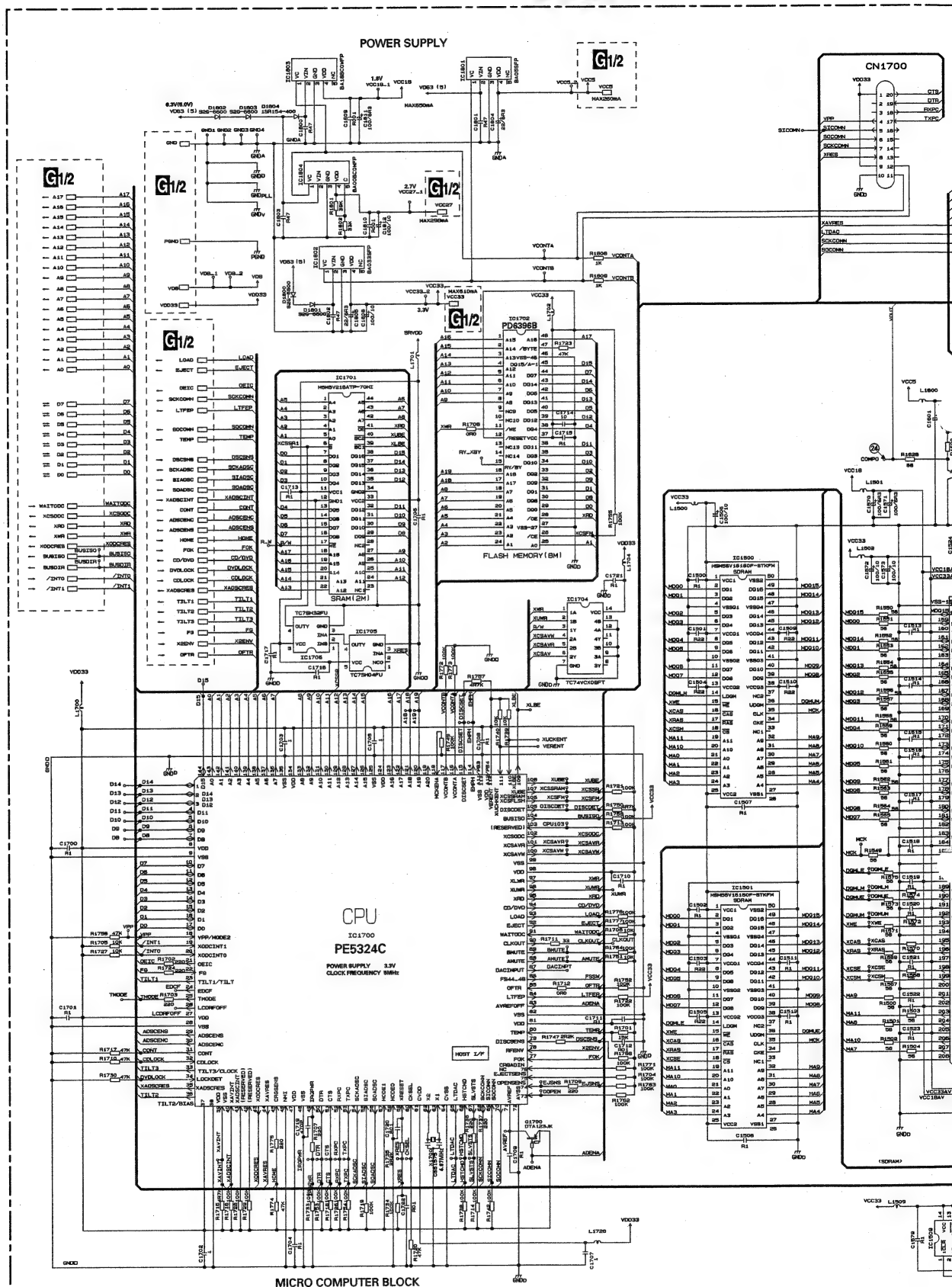




G-a G-b



G-b 1/2



DVD CORE UNIT V(BACK END)





A

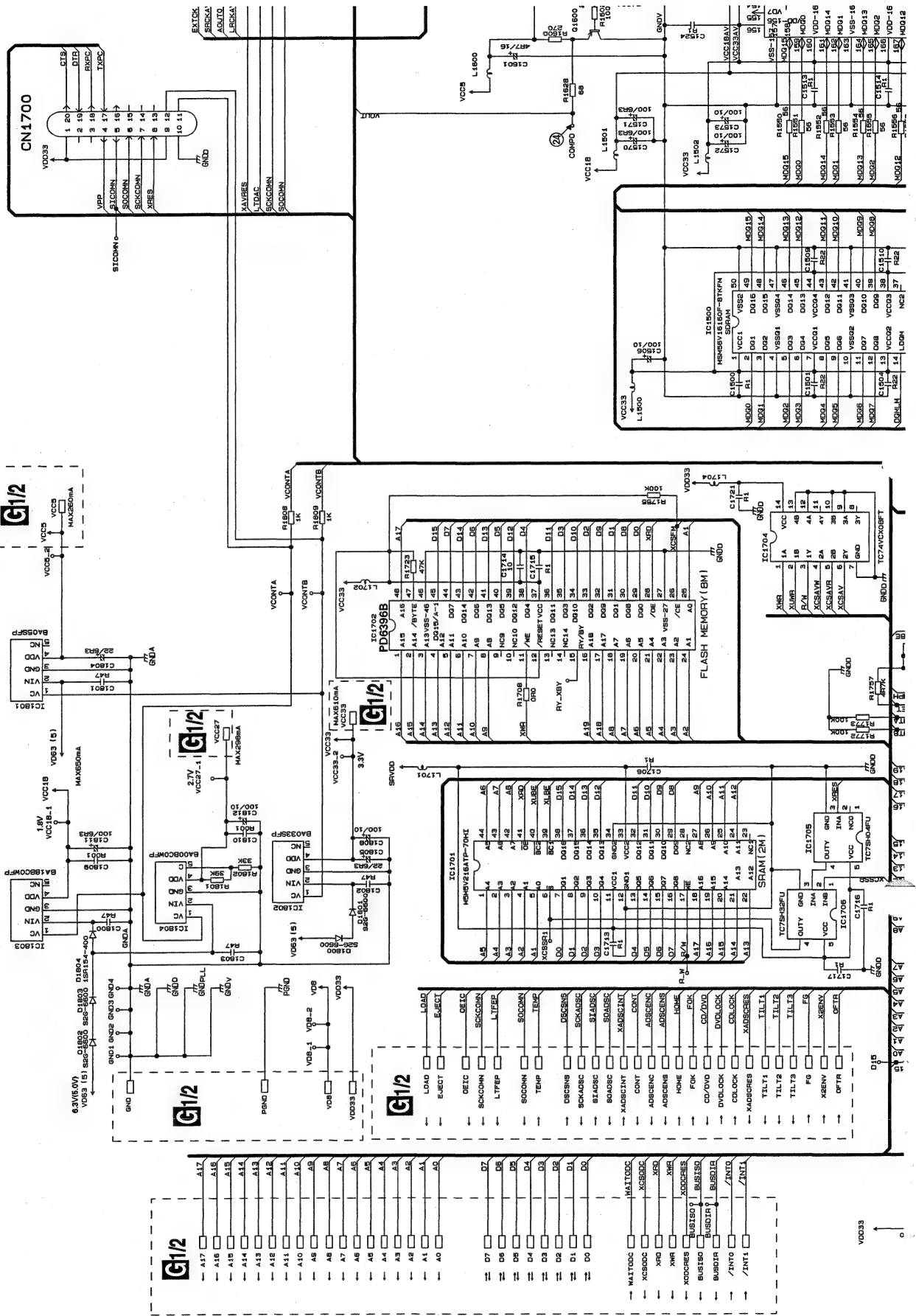
B

C

D

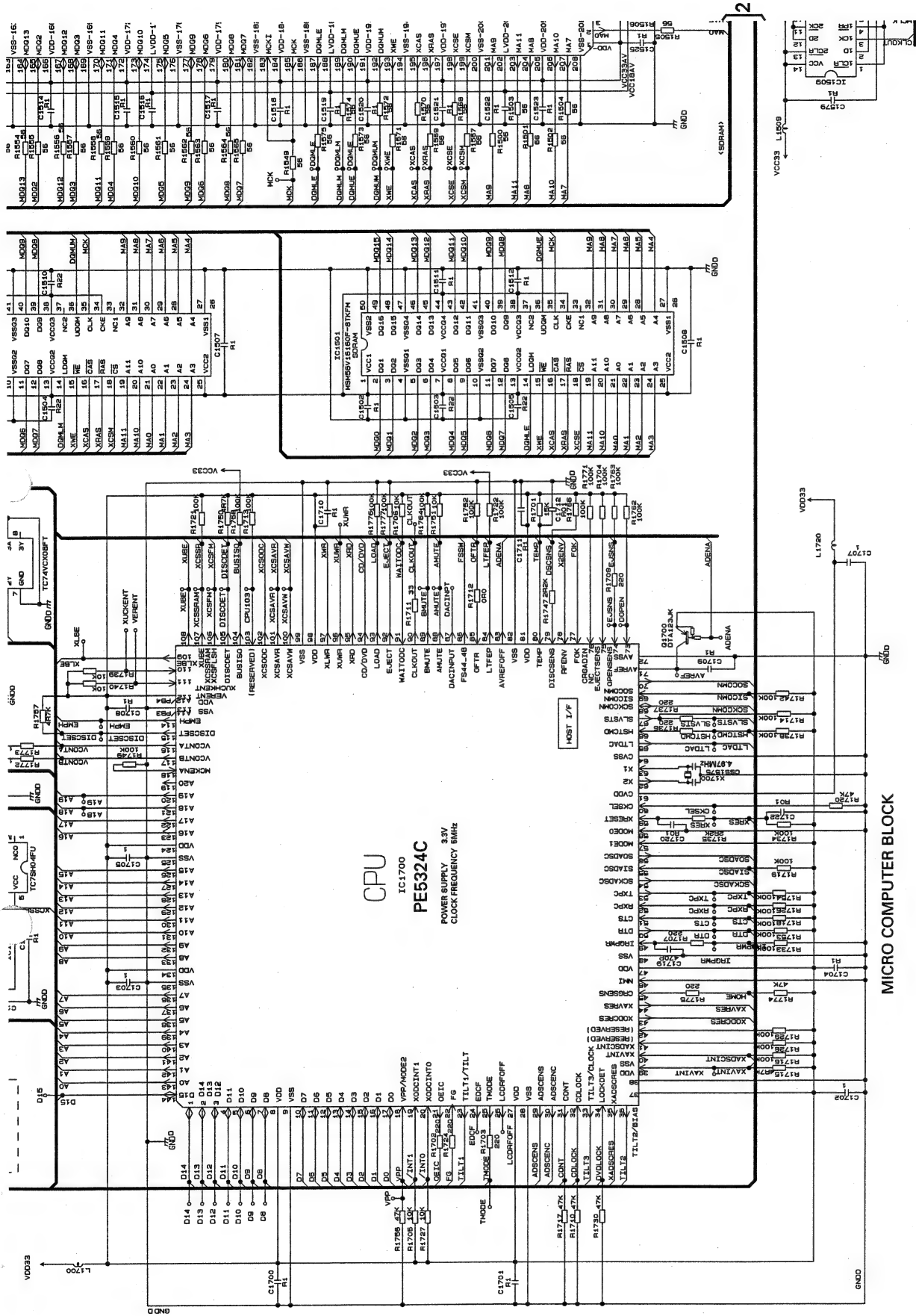
G-a G-b

POWER SUPPLY





G-a G-b



A

B

C

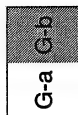
D

1

2

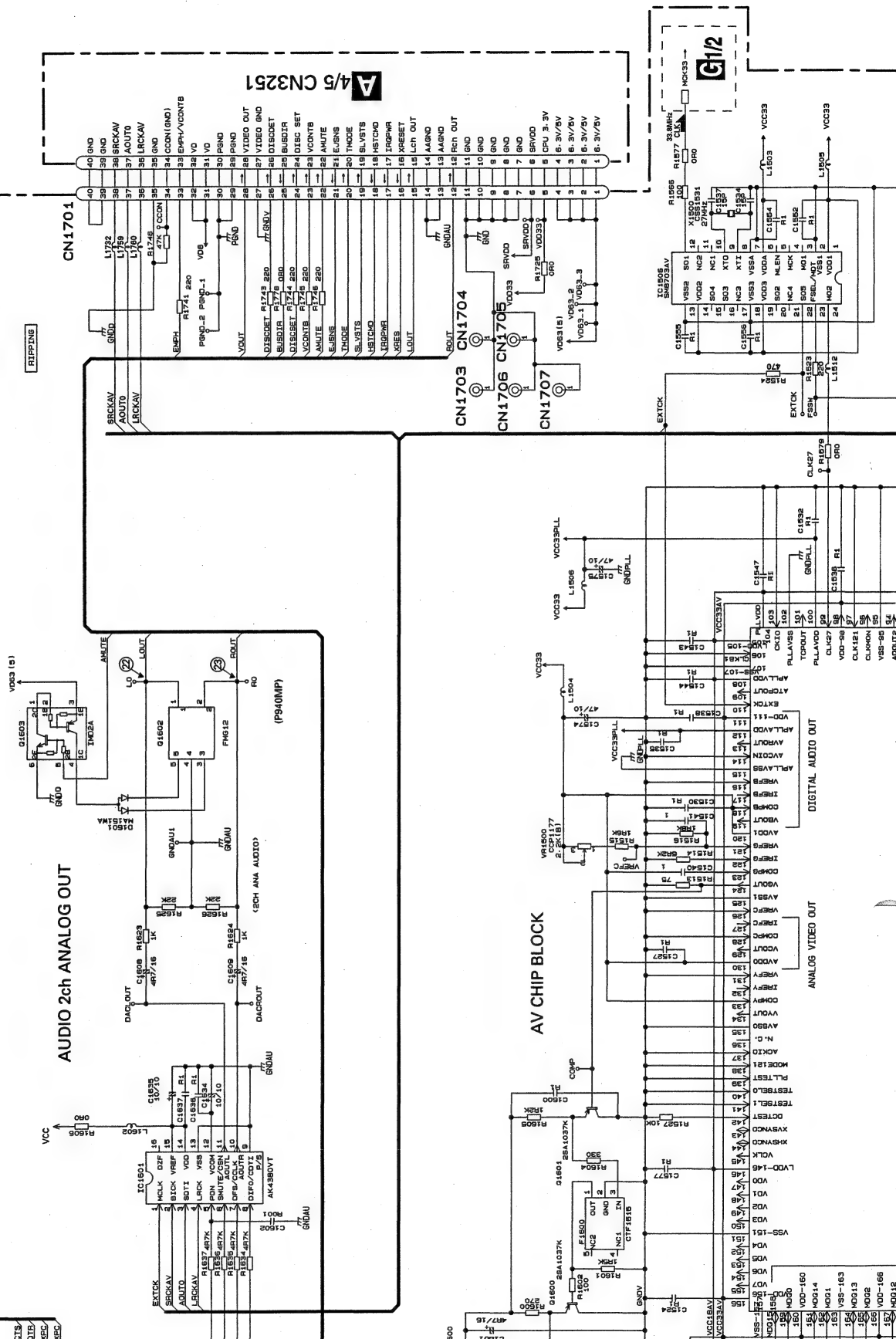
3

4



DVD CORE UNIT V(BACK END)

G2/2



1

2

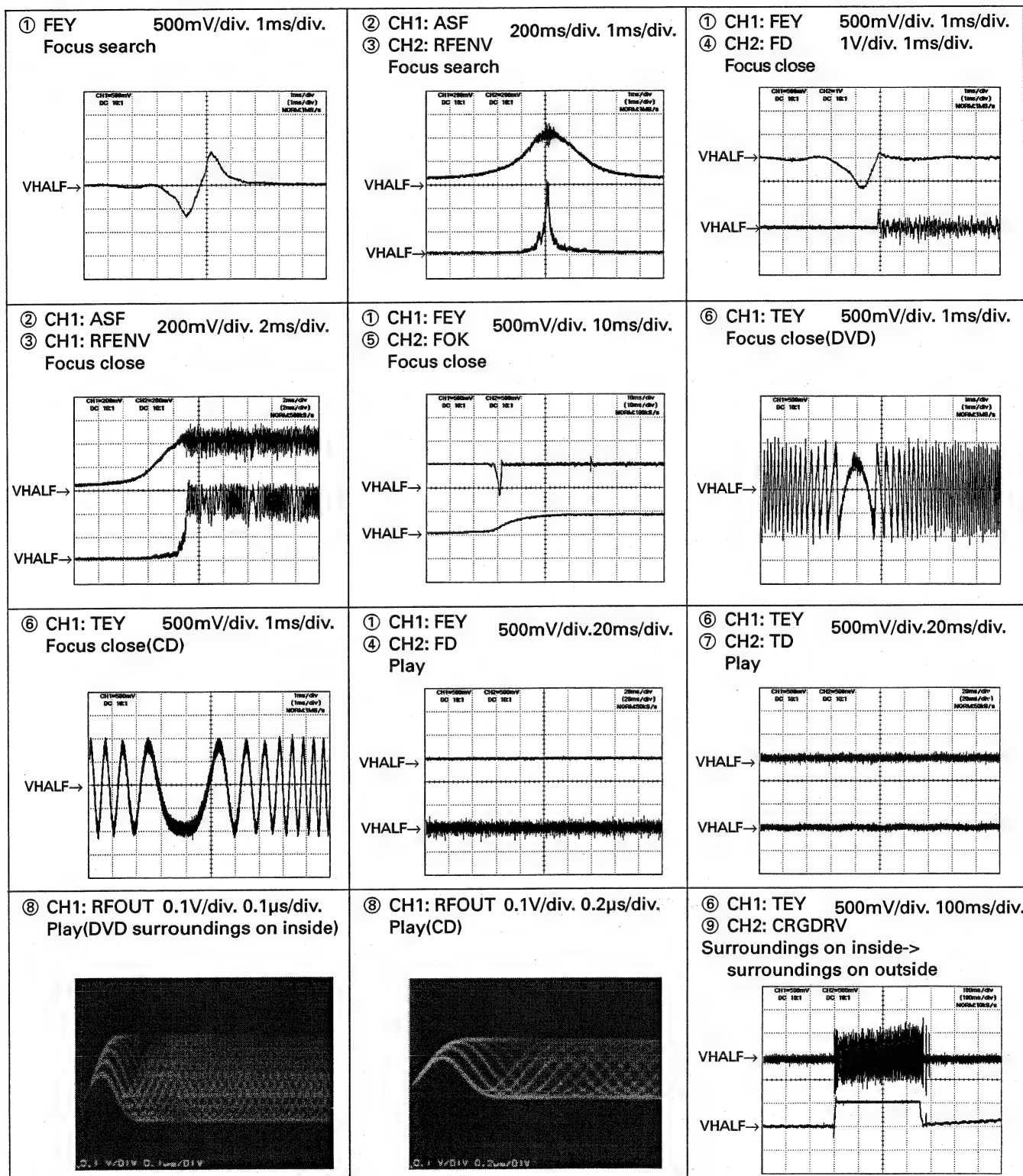
3

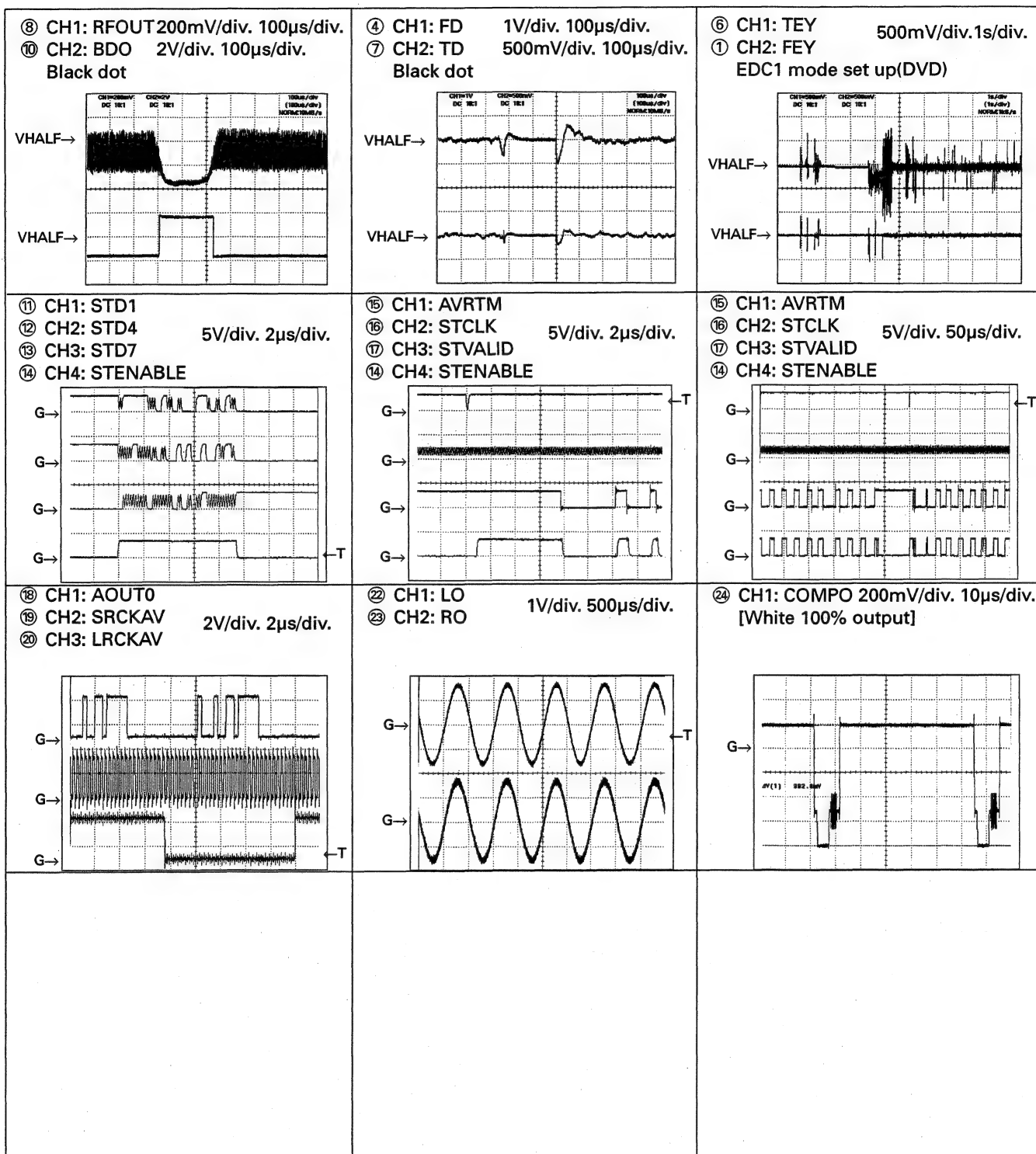
4



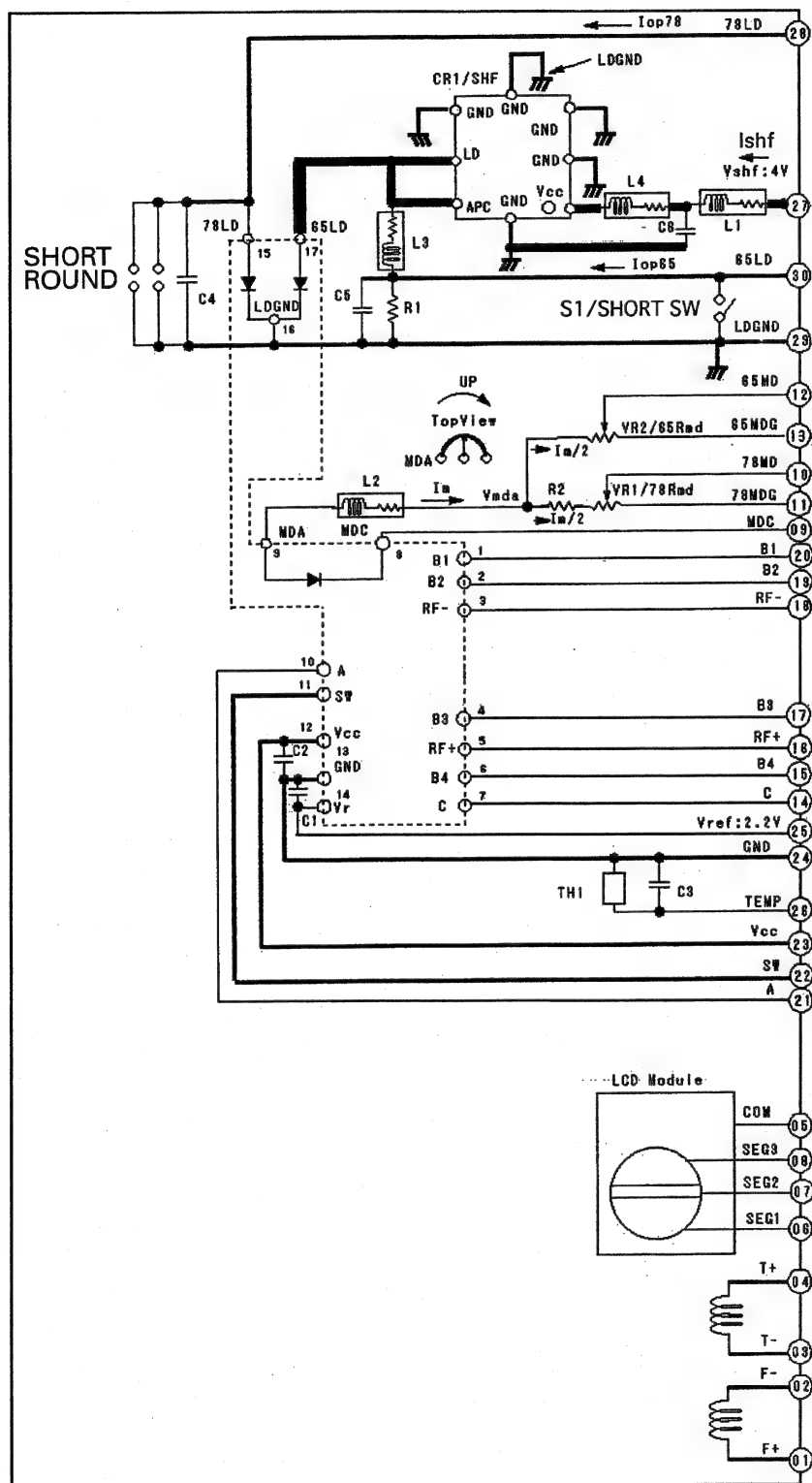
## ● Waveforms

Note:1. The encircled number denote measuring pointes in the circuit diagram.  
2. Reference voltage VHALF : 1.65V





3.20 PU UNIT(REFERENCE)





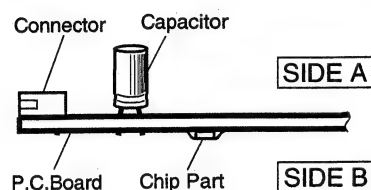


# 4. PCB CONNECTION DIAGRAM

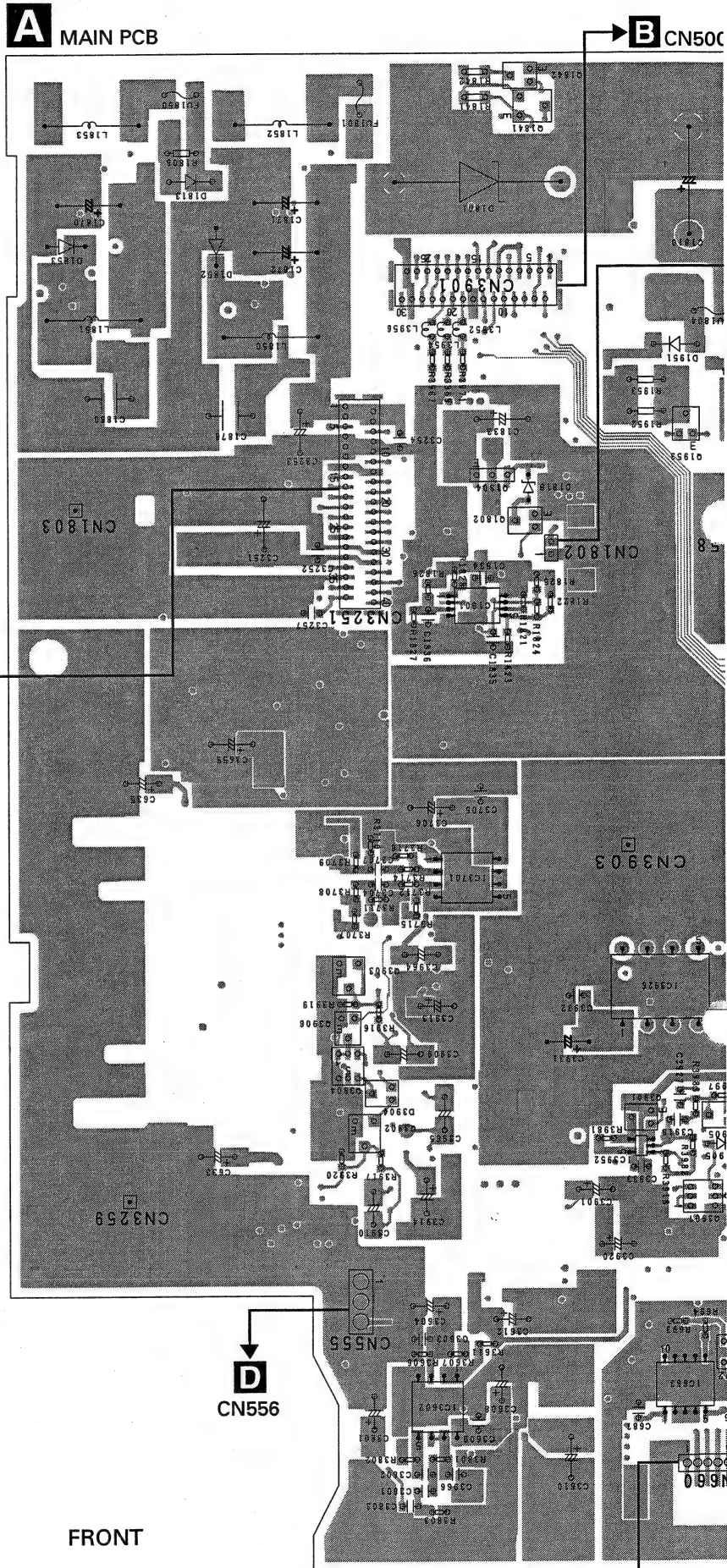
## 4.1 MAIN PCB

### NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination. For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



IC,Q  
Q1842  
Q1841  
Q3151  
Q1953 Q664  
Q1804  
IC571 Q636  
Q1802 Q661  
Q635  
100101  
CN1701  
IC601  
IC3701  
IC611  
Q3903  
IC3926  
Q3906  
Q3851  
Q3904 Q3853  
Q3852 Q667  
IC3951 Q3901  
Q3905 Q3854 Q3902  
IC3952  
Q3855 Q3856 IC665  
Q673  
Q3907  
IC3953  
Q671 Q672  
IC662 IC663  
IC3602





CN5004

FAN MOTOR

CORD ASSY

CORD ASSY

SIDE A

CN461

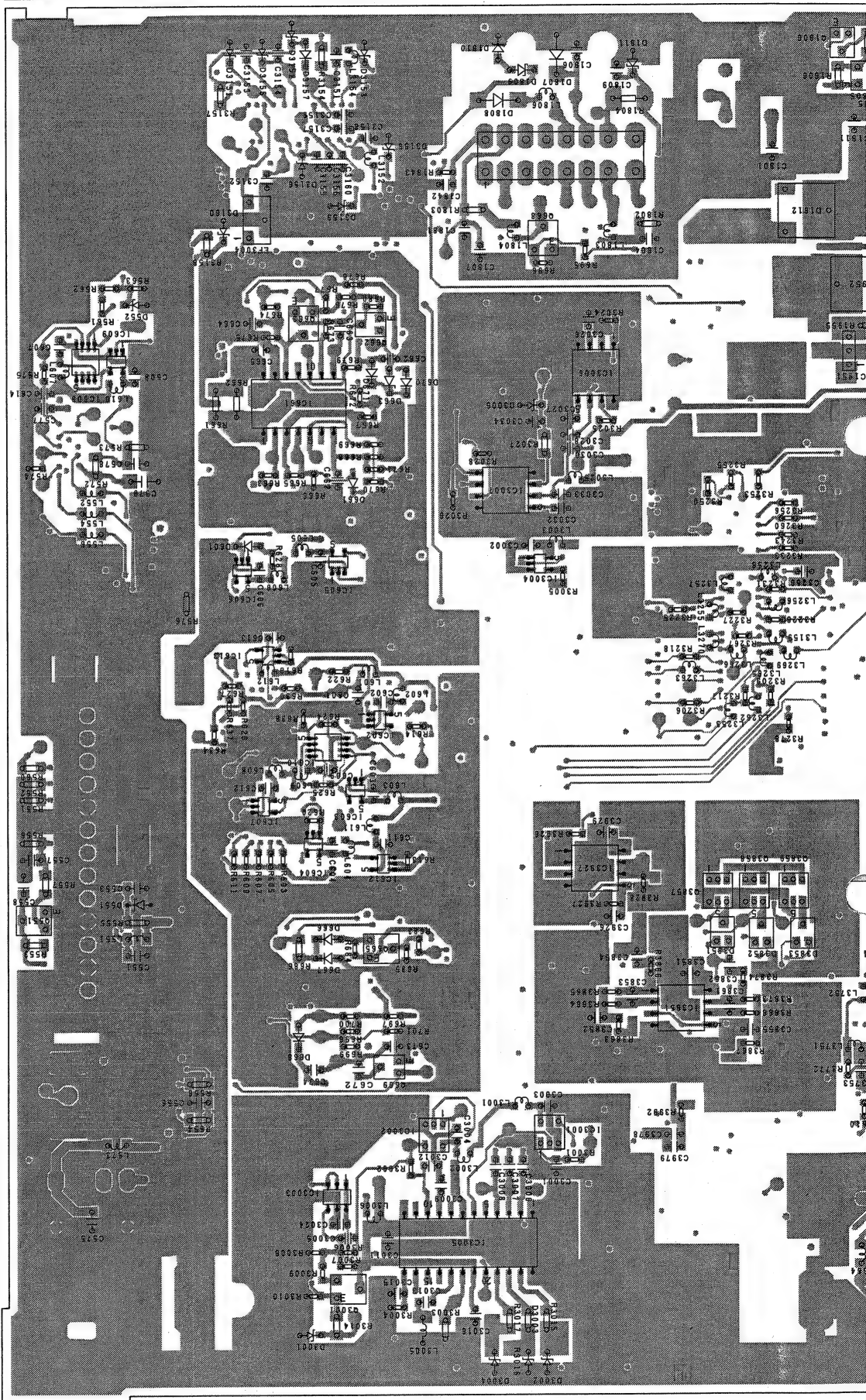
CN302

ANTENNA  
CABLE  
(EW MODEL ONLY)

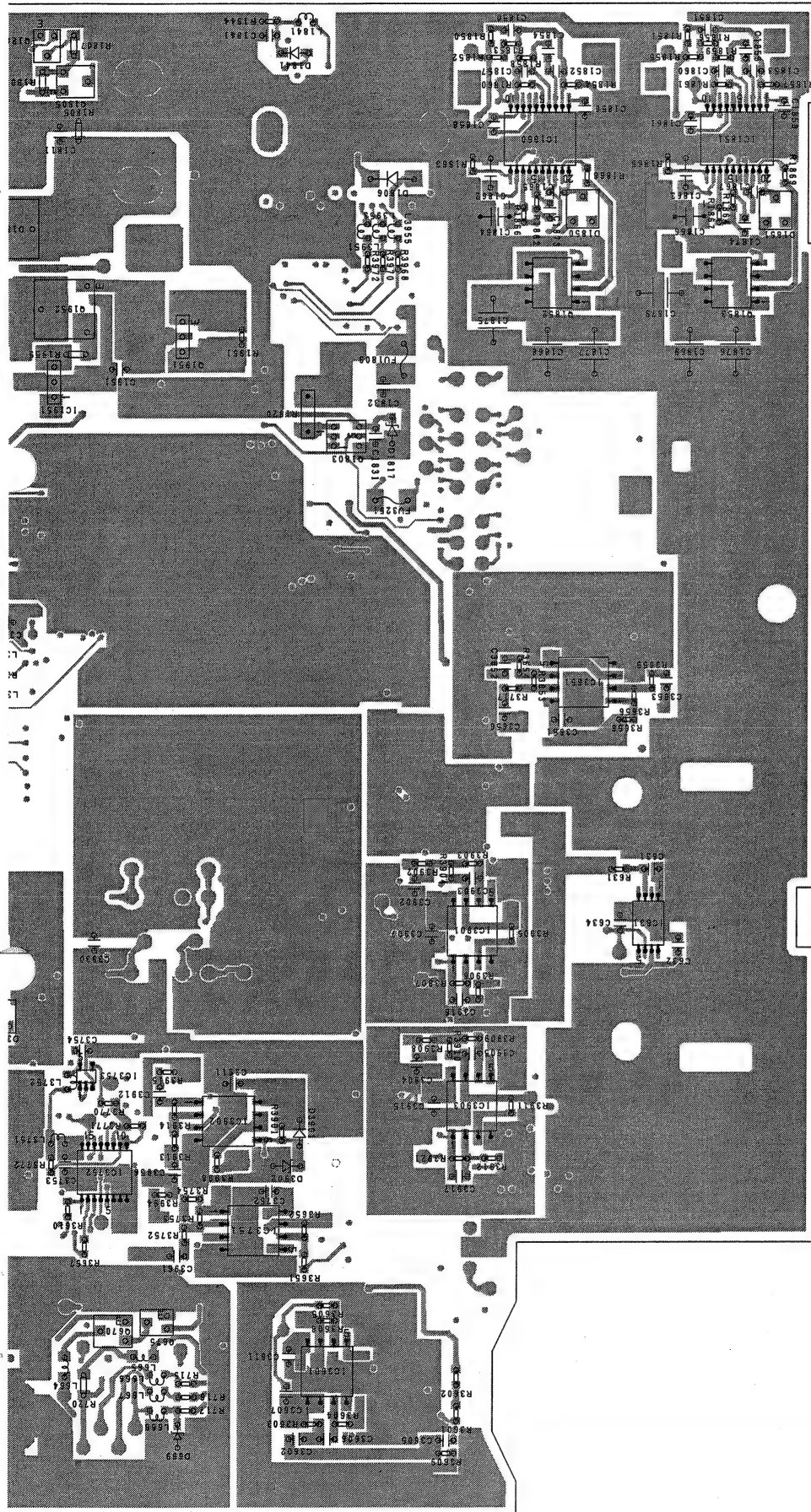
CN2851

A

**A** MAIN PCB







SIDE B

IC,Q

Q1806

Q1805

IC1851 IC1850

Q668

Q1952 Q1853 Q1852

Q663 IC609

Q1951 Q662

IC3006

IC1951 IC608

IC661

Q1803

IC3007

IC3004 IC605

IC606

IC3651

IC613

IC602

IC610

IC603 IC607

IC631 IC3901

Q3859 Q3858

IC3927 IC604 IC612

Q3857

Q551

Q665

IC3753

IC3851 IC3903

IC3902

IC3752

Q669

IC3002 IC3751

IC3001

IC3003

Q670 Q675

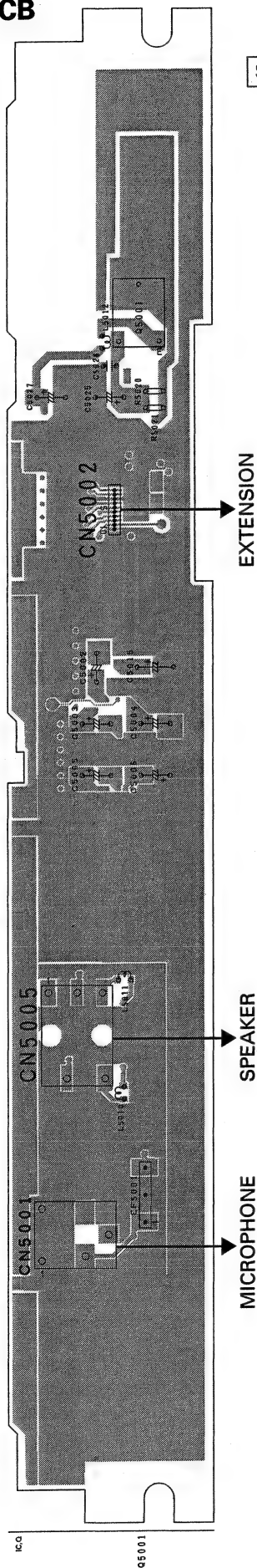
IC3005

IC3601

Q3001

# 4.2 INTERFACE PCB

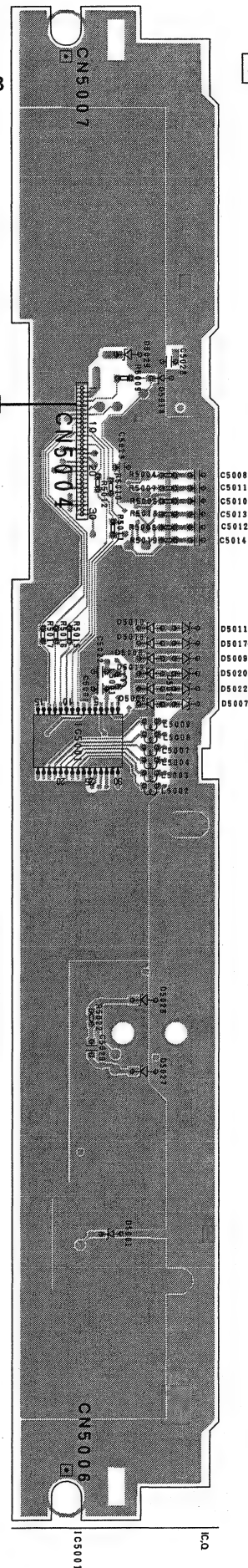
**B** INTERFACE PCB



**A** SIDE A

**B** INTERFACE PCB

**B** SIDE B

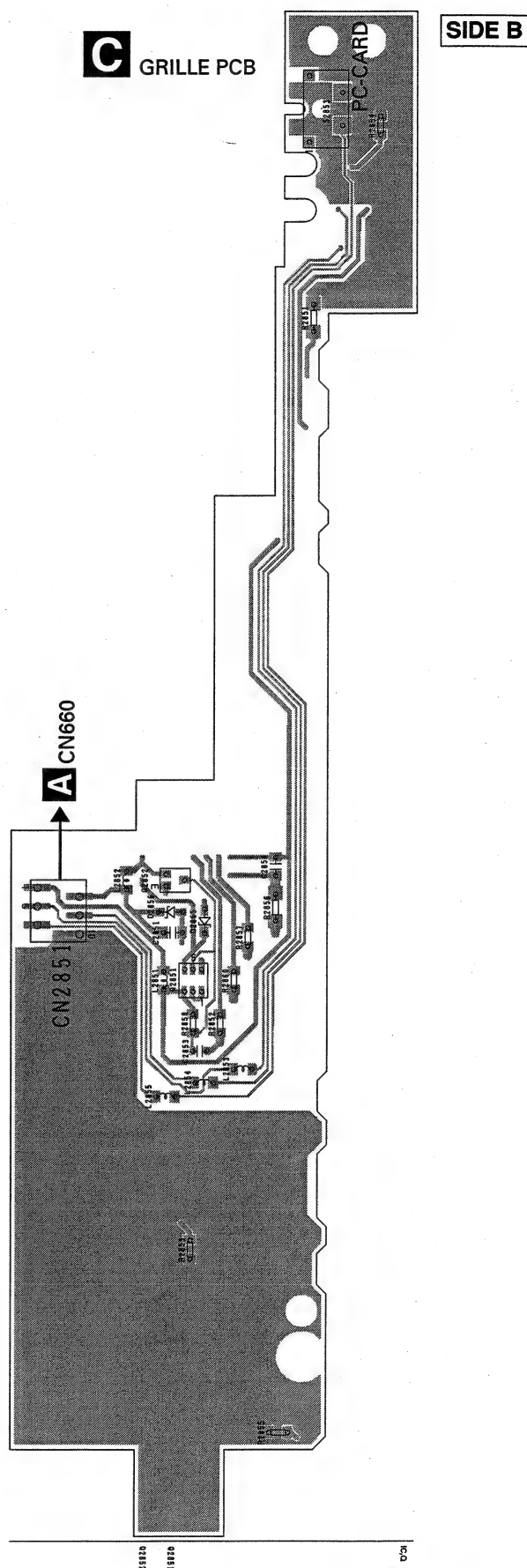
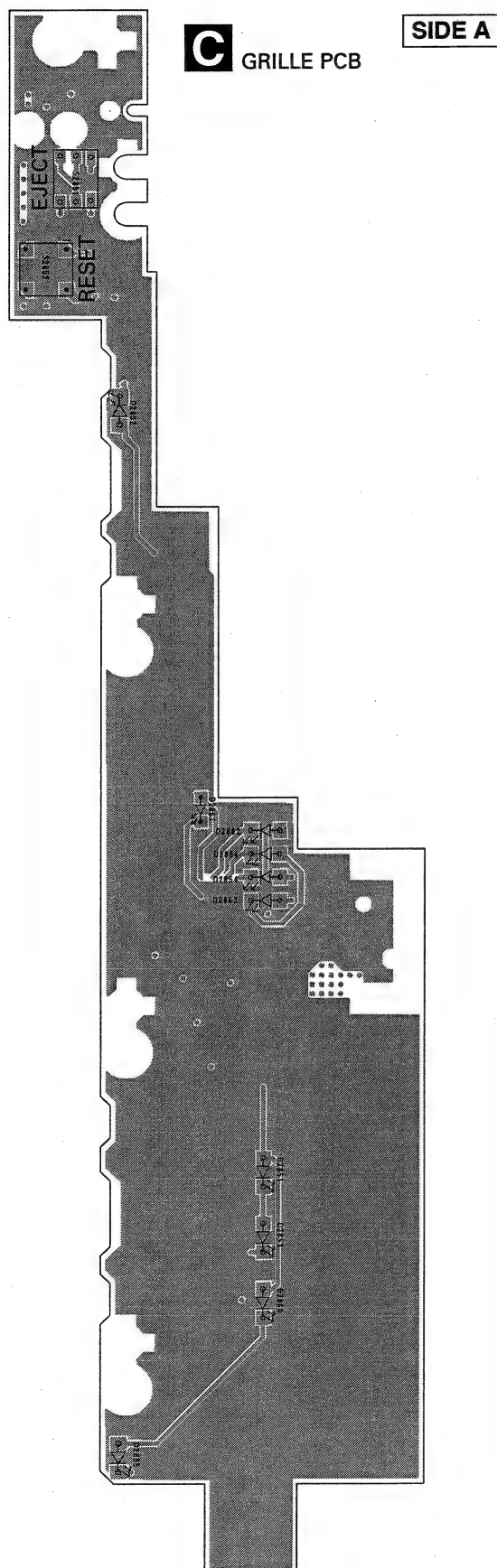


**A** CN3901

C5008  
C5011  
C5010  
C5013  
C5012  
C5014

D5011  
D5017  
D5009  
D5020  
D5022  
D5007

### 4.3 GRILLE PCB



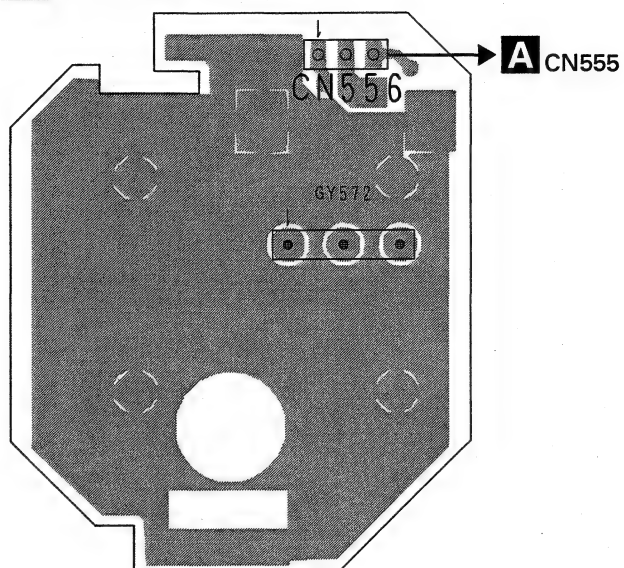
## 4.4 G-SENSOR PCB

A

SIDE A

**D**

G-SENSOR PCB

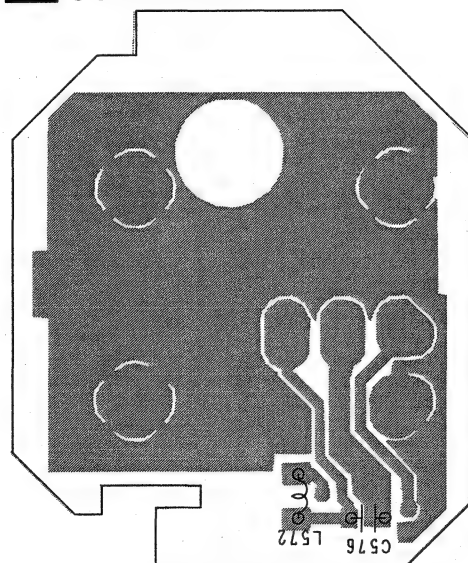


B

SIDE B

**D**

G-SENSOR PCB



D



**SIDE A**

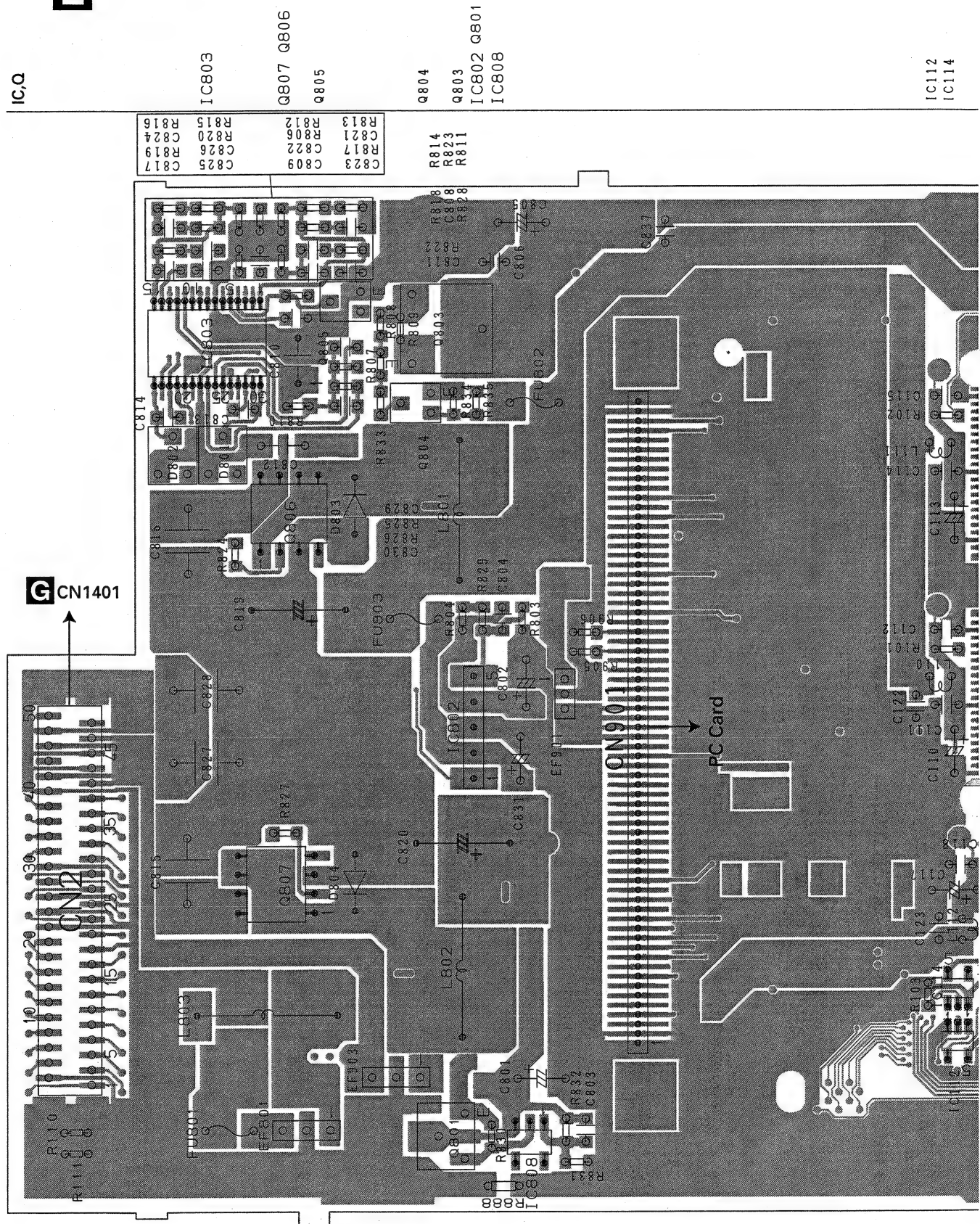
## GPS UNIT



## GPS UNIT



#### 4.6 CC UNIT

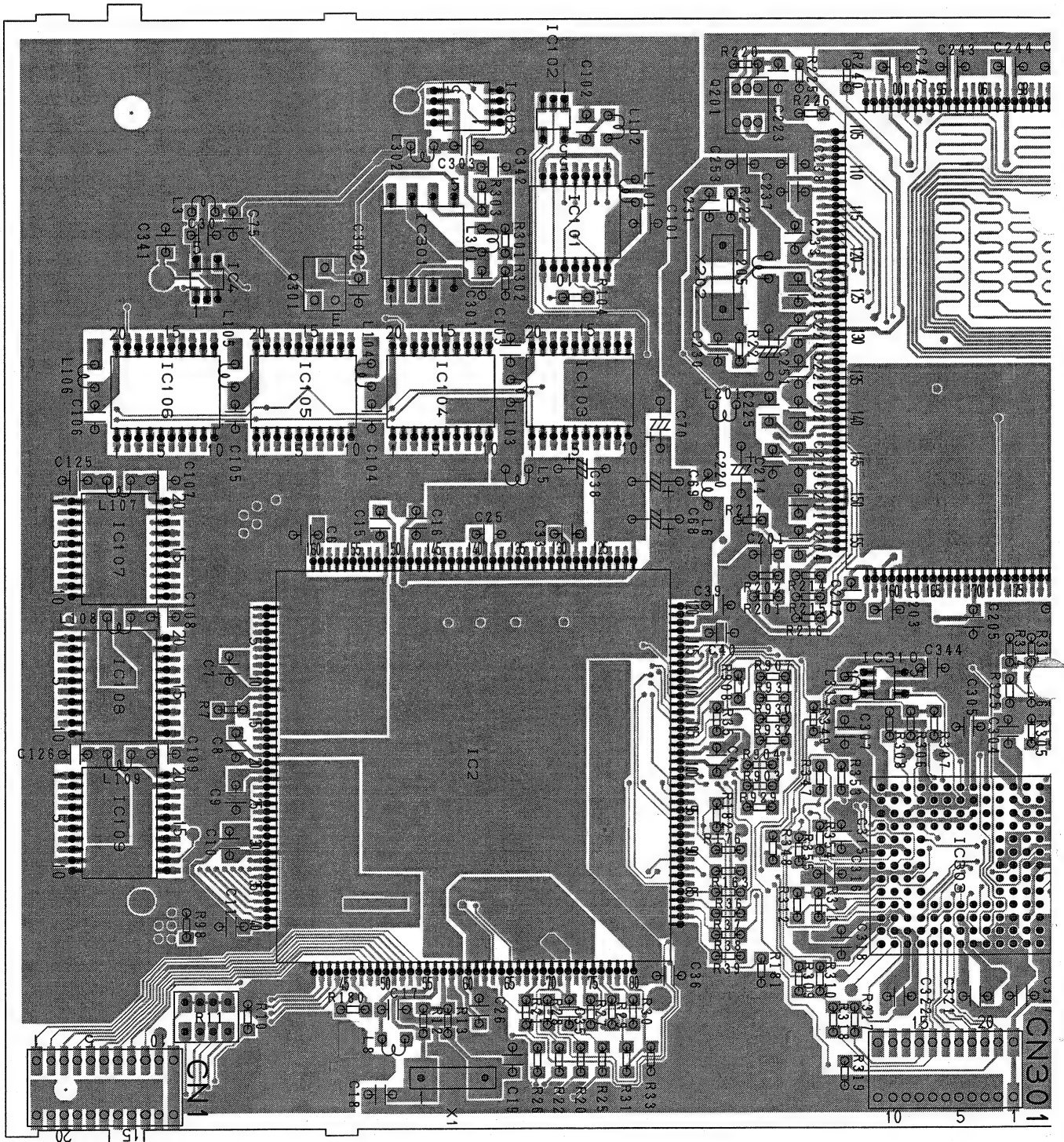
**E** CC UNIT





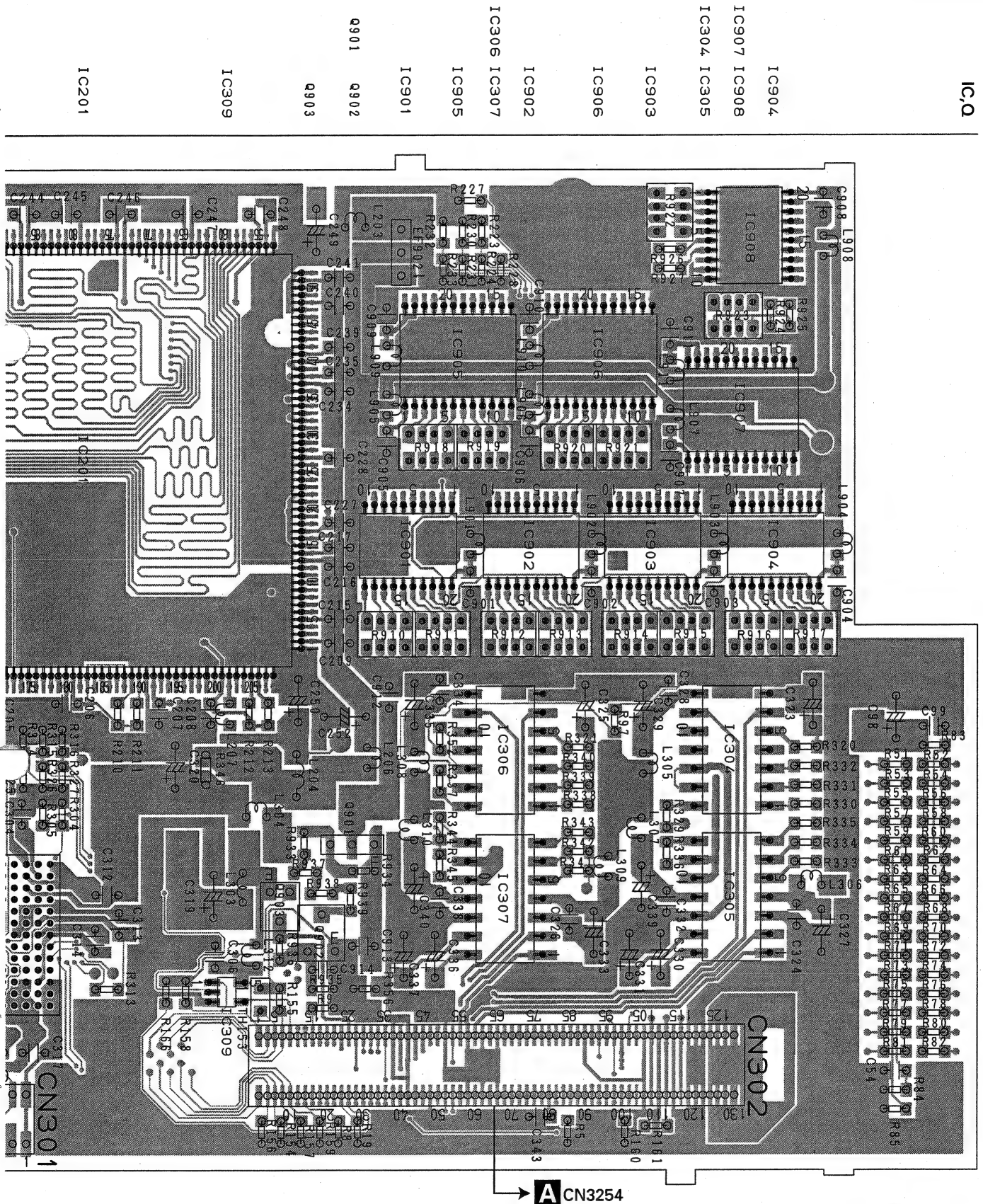
**E** CC UNIT

IC303  
IC310  
Q201  
IC101 IC103  
IC102  
IC302 IC2  
IC104  
IC301  
IC105  
Q301  
IC4  
IC106  
IC107  
IC108 IC109





SIDE B

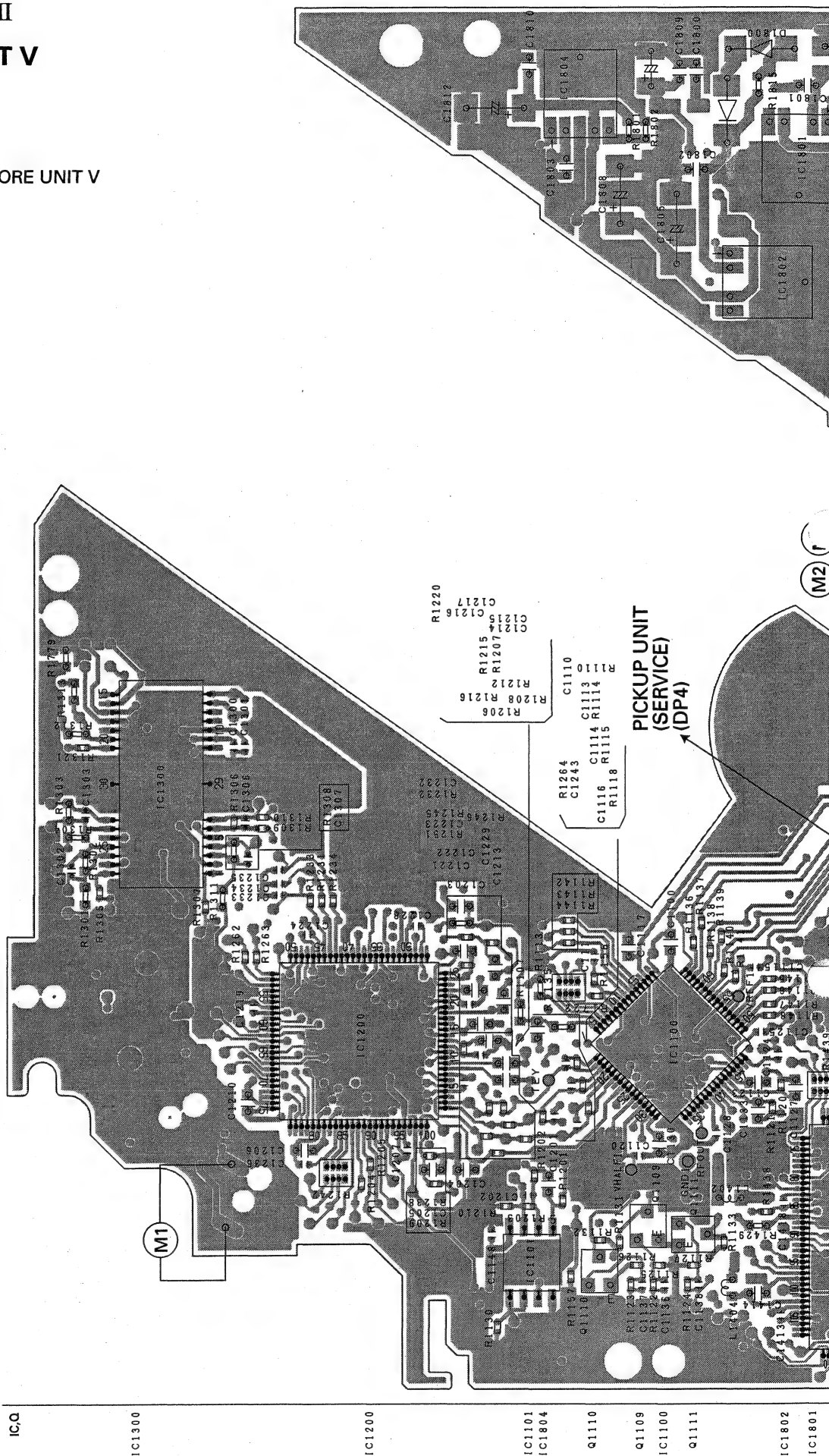


1 2 3 4

# AVIC-90DVD,9DVDII

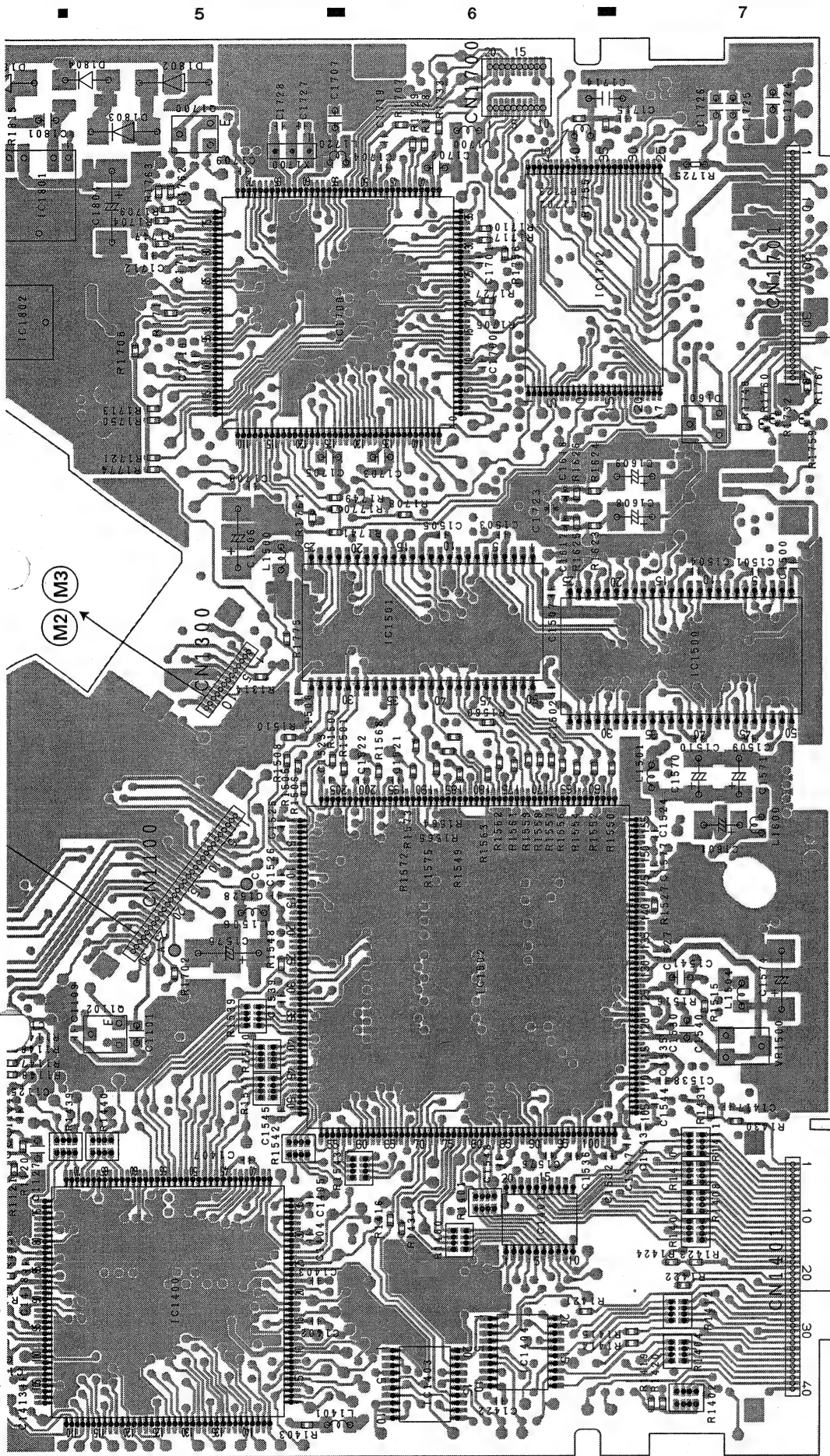
## 4.7 DVD CORE UNIT V

**G** DVD CORE UNIT V





SIDE A



A  
CN3251

E  
CN2

IC1802  
IC1801  
Q1102  
IC1400  
Q1700  
IC1700  
IC1501  
IC1403  
IC1502  
IC1404  
IC1401  
IC1702  
IC1500  
ADJ  
VR1300

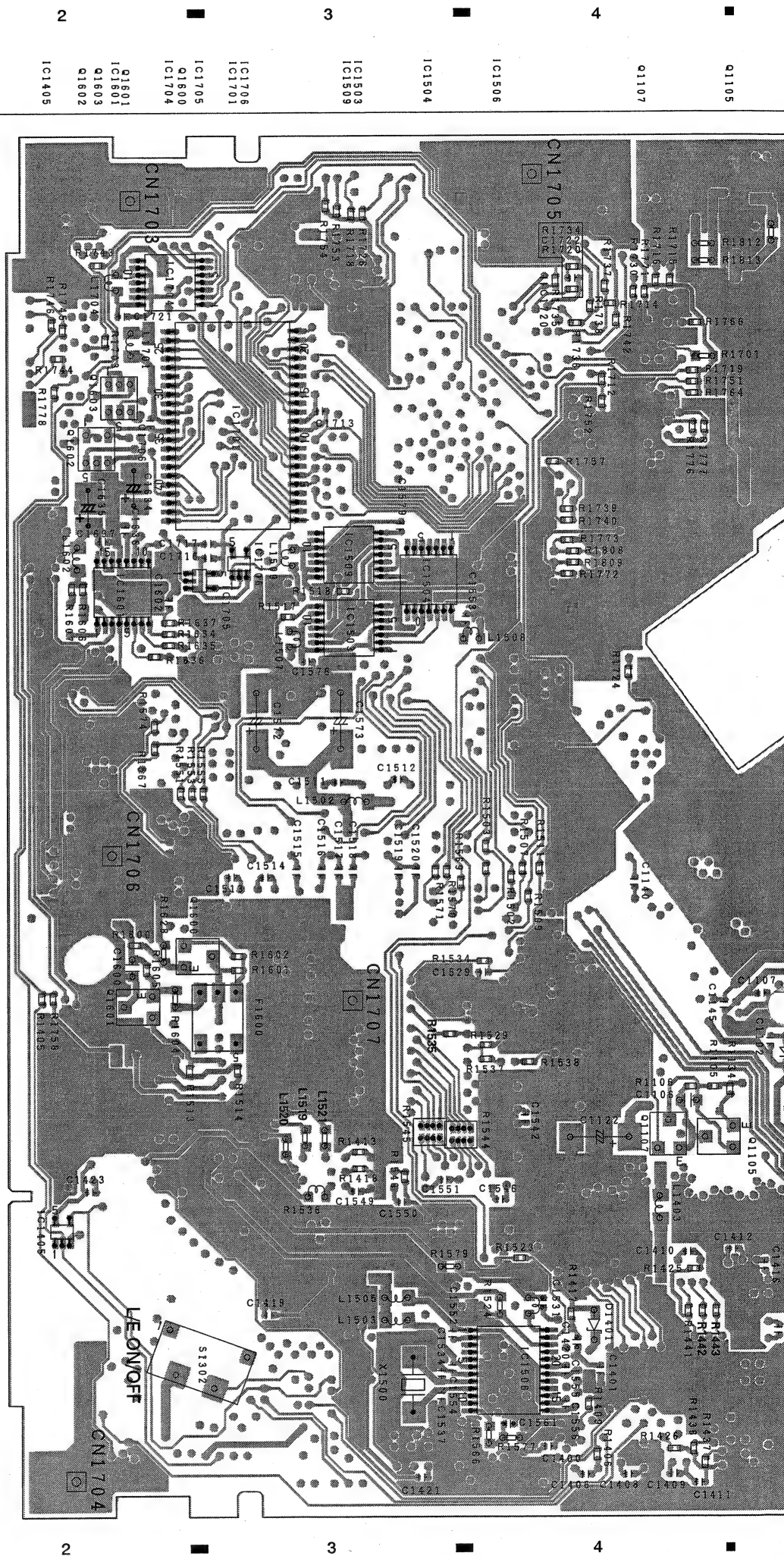


## DVD CORE UNIT V

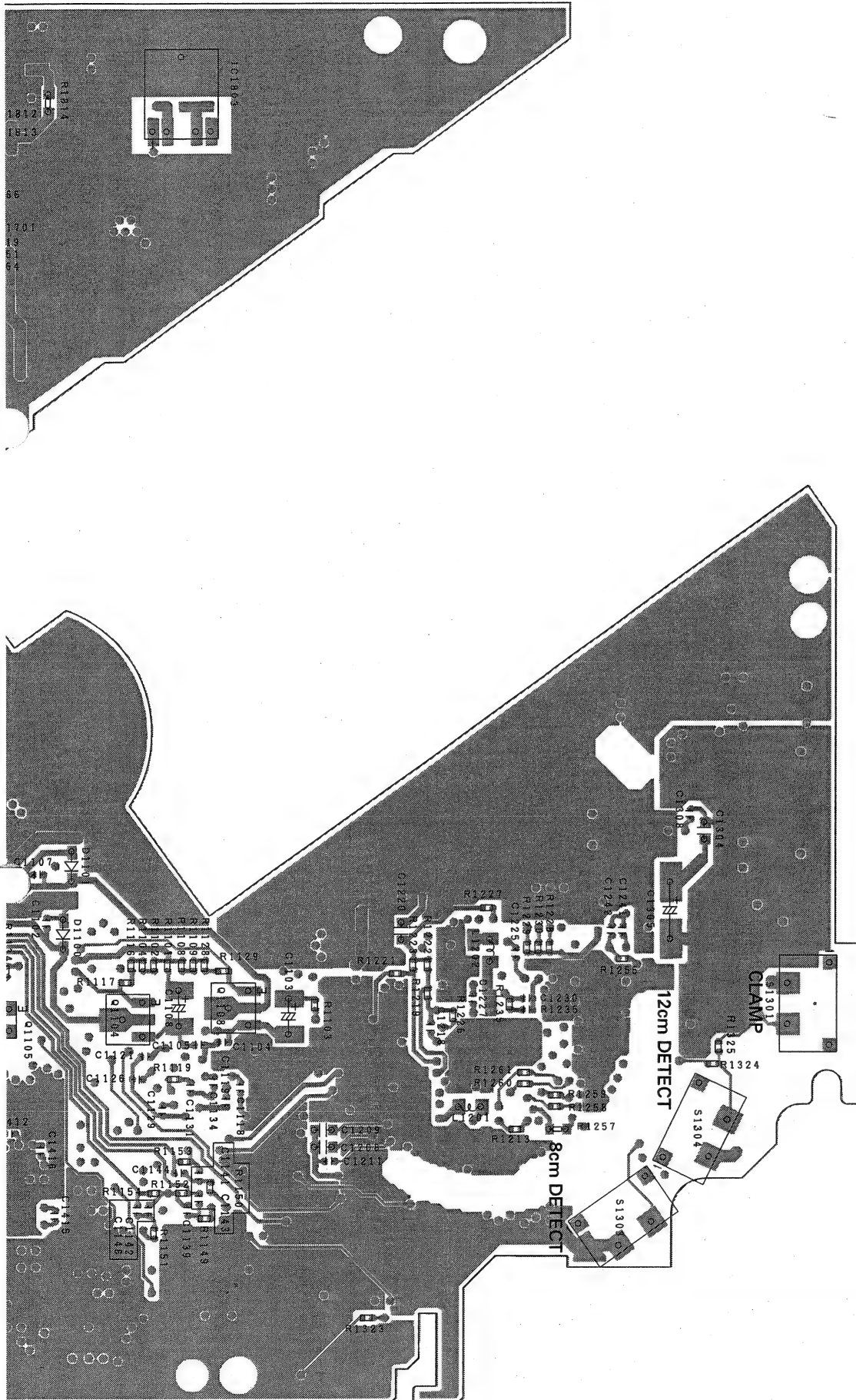
1

G

108







## 5. ELECTRICAL PARTS LIST

### NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○○J,RS1/○○S○○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
<b>E</b> Unit Number : CWM8391(AVIC-90DVD/UC)		Q 902 Transistor	2SC2712
Unit Name : CC Unit		Q 903 Transistor	DTA114EU
		D 801 Diode	RB400D
		D 802 Diode	RB400D
		D 803 Diode	RB060L-40
		D 804 Diode	RB060L-40
		L 1 Inductor	CTF1558
		L 2 Inductor	CTF1558
		L 3 Inductor	CTF1410
		L 5 Inductor	CTF1556
		L 6 Inductor	CTF1295
		L 7 Inductor	CTF1558
		L 8 Inductor	CTF1556
		L 101 Inductor	CTF1557
		L 102 Inductor	CTF1557
		L 103 Inductor	CTF1557
		L 104 Inductor	CTF1557
		L 105 Inductor	CTF1557
		L 106 Inductor	CTF1557
		L 107 Inductor	CTF1557
		L 108 Inductor	CTF1557
		L 109 Inductor	CTF1557
		L 110 Inductor	CTF1556
		L 111 Inductor	CTF1556
		L 112 Inductor	CTF1556
		L 113 Inductor	CTF1557
		L 114 Inductor	CTF1557
		L 201 Inductor	CTF1556
		L 203 Inductor	CTF1556
		L 204 Inductor	CTF1488
		L 205 Inductor	CTF1556
		L 206 Inductor	CTF1556
		L 207 Inductor	CTF1379
		L 301 Inductor	CTF1557
		L 302 Inductor	CTF1557
		L 305 Inductor	CTF1556
		L 306 Inductor	CTF1556
		L 307 Inductor	CTF1556
		L 312 Inductor	CTF1410
		L 801 Inductor	CTH1257
		L 802 Inductor	CTH1257
		L 803 Inductor	CTH1253
		L 901 Inductor	CTF1410
		L 902 Inductor	CTF1410
		L 903 Inductor	CTF1410
		L 904 Inductor	CTF1410
		L 905 Inductor	CTF1410
		L 906 Inductor	CTF1410
		L 907 Inductor	CTF1410
		L 908 Inductor	CTF1410
IC 1 IC	K4S281632D-TL1L		
IC 2 IC	UPD705103GM-180		
IC 3 IC	M2V2840ATP-7L		
IC 4 IC	TC7SZ08FU		
IC 5 IC	PD6336B		
IC 101 IC	TC74LCX08FT		
IC 102 IC	TC7SH04FU		
IC 103 IC	TC74LCX245FT		
IC 104 IC	TC74LCX245FT		
IC 105 IC	TC74LCX245FT		
IC 106 IC	TC74LCX245FT		
IC 107 IC	TC74LCX541FT		
IC 108 IC	TC74LCX541FT		
IC 109 IC	TC74LCX541FT		
IC 110 IC (AVIC-90DVD/UC)	PD6403B		
IC 110 IC (AVIC-9DVDII/EW)	PD6401B		
IC 111 IC (AVIC-90DVD/UC)	PD6404B		
IC 111 IC (AVIC-9DVDII/EW)	PD6402B		
IC 112 IC	TC7SH00FU		
IC 113 IC	M5M5V216ATP-70HI		
IC 114 IC	TC7SH08FU		
IC 201 IC	MB86291APFVS-G-DL		
IC 301 IC	M51957BFP		
IC 302 IC	TC7WH08FU		
IC 304 IC	PCM1725U		
IC 305 IC	PCM1801U		
IC 309 IC	TC7SH08FU		
IC 802 IC	LP3965ES-ADJ		
IC 803 IC	TPS5102IDBT		
IC 901 IC	TC74VHCT541AFT		
IC 902 IC	TC74VHCT541AFT		
IC 903 IC	TC74VHCT541AFT		
IC 904 IC	TC74VHCT541AFT		
IC 905 IC	TC74LVX4245FS		
IC 906 IC	TC74LVX4245FS		
IC 907 IC	TC74LVX4245FS		
IC 908 IC	TC74VHC541FT		
Q 201 Transistor	UMD2N		
Q 301 Transistor	DTC114EU		
Q 803 Transistor	2SA1834F5		
Q 804 Transistor	2SC4081		
Q 805 Transistor	DTC114EU		
Q 806 FET	RK4936		
Q 807 FET	RK4936		
Q 901 Transistor	2SA1797		



====Circuit Symbol and No.====Part Name			Part No.	====Circuit Symbol and No.====Part Name			Part No.
L	909	Inductor	CTF1410	R	63		RS1/16S101J
L	910	Inductor	CTF1410	R	64		RS1/16S101J
L	911	Inductor	CTF1410	R	65		RS1/16S101J
TH	153	Thermistor	CCX1056	R	66		RS1/16S101J
X	1	Radiator 30.0MHz	CSS1563	R	67		RS1/16S101J
X	2	Radiator 33.0MHz	CSS1564	R	68		RS1/16S101J
X	3	Radiator 33.86MHz	CSS1551	R	69		RS1/16S101J
X	202	Radiator 14.31818MHz	CSS1562	R	70		RS1/16S101J
FU	801	Fuse 4A	CEK1199	R	71		RS1/16S101J
FU	802	Fuse 2.5A	CEK1209	R	72		RS1/16S101J
FU	803	Fuse 2.5A	CEK1209	R	73		RS1/16S101J
EF	801	EMI Filter	CCG1083	R	74		RS1/16S101J
EF	901	EMI Filter	CCG1104	R	75		RS1/16S101J
EF	902	EMI Filter	CCG1083	R	76		RS1/16S101J
EF	903	EMI Filter	CCG1083	R	77		RS1/16S101J
RESISTORS				R	78		RS1/16S101J
R	2		RS1/16S0R0J	R	79		RS1/16S101J
R	4		RS1/16S0R0J	R	80		RS1/16S101J
R	5		RS1/16S473J	R	81		RS1/16S101J
R	6		RS1/16S473J	R	82		RS1/16S101J
R	7		RS1/16S220J	R	83		RS1/16S102J
R	8		RS1/16S473J	R	84		RS1/16S562J
R	9		RS1/16S473J	R	85		RS1/16S103J
R	10		RS1/16S104J	R	87		RS1/16S104J
R	11		RAB4C473J	R	88		RS1/16S104J
R	12		RS1/16S105J	R	89		RS1/16S0R0J
R	13		RS1/16S151J	R	90		RS1/16S0R0J
R	15		RS1/16S0R0J	R	93		RS1/16S153J
R	17		RS1/16S0R0J	R	94		RS1/16S153J
R	19		RS1/16S473J	R	95		RS1/16S153J
R	20		RS1/16S101J	R	96		RS1/16S153J
R	21		RS1/16S101J	R	97		RS1/16S473J
R	22		RS1/16S101J	R	98		RS1/16S473J
R	23		RS1/16S105J	R	101		RS1/16S473J
R	24		RS1/16S151J	R	102		RS1/16S473J
R	25		RS1/16S101J	R	103		RS1/16S473J
R	26		RS1/16S101J	R	104		RS1/16S220J
R	27		RS1/16S101J	R	110	(AVIC-90DVDII/EW)	RS1/16S0R0J
R	28		RS1/16S101J	R	111	(AVIC-90DVD/UC)	RS1/16S0R0J
R	29		RS1/16S101J	R	154		RS1/16S473J
R	30		RS1/16S101J	R	155		RS1/16S473J
R	31		RS1/16S101J	R	156		RS1/16S473J
R	32		RS1/16S473J	R	157		RS1/16S473J
R	33		RS1/16S473J	R	158		RS1/16S473J
R	34		RS1/16S105J	R	159		RS1/16S473J
R	35		RS1/16S104J	R	160		RS1/16S473J
R	36		RS1/16S101J	R	161		RS1/16S103J
R	37		RS1/16S101J	R	162		RS1/16S473J
R	38		RS1/16S101J	R	163		RS1/16S560J
R	39		RS1/16S101J	R	166		RS1/16S473J
R	45		RS1/16S104J	R	176		RS1/16S0R0J
R	46		RS1/16S104J	R	180		RS1/16S220J
R	47		RS1/16S104J	R	181		RS1/16S473J
R	48		RS1/16S104J	R	201		RN1/16SE1502D
R	49		RS1/16S104J	R	202		RN1/16SE1202D
R	50		RS1/16S104J	R	210		RS1/16S104J
R	51		RS1/16S101J	R	211		RS1/16S104J
R	52		RS1/16S101J	R	212		RS1/16S104J
R	53		RS1/16S101J	R	213		RS1/16S104J
R	54		RS1/16S101J	R	217		RS1/16S272J
R	55		RS1/16S101J	R	220		RS1/16S223J
R	57		RS1/16S101J	R	221		RS1/16S105J
R	59		RS1/16S101J	R	222		RS1/16S151J
R	60		RS1/16S101J	R	224		RS1/16S0R0J
R	61		RS1/16S0R0J	R	225		RS1/16S104J
R	62		RS1/16S101J				

# AVIC-90DVD,9DVDII

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
R 226	RS1/16S104J	R 919	RAB4C101J
R 227	RS1/16S104J	R 920	RAB4C101J
R 228	RS1/16S104J	R 921	RAB4C101J
R 229	RS1/16S560J	R 922	RAB4C101J
R 230	RS1/16S104J	R 923	RAB4C473J
R 232	RS1/16S104J	R 924	RS1/16S473J
R 237	RS1/16S104J	R 925	RS1/16S473J
R 238	RS1/16S330J	R 926	RS1/16S101J
R 240	RS1/16S104J	R 927	RS1/16S101J
R 301	RS1/16S123J	R 929	RS1/16S104J
R 302	RS1/16S103J	R 930	RS1/16S104J
R 303	RS1/16S473J	R 931	RS1/16S104J
R 320	RS1/16S201J	R 932	RS1/16S104J
R 329	RS1/16S221J	R 933	RS1/16S270J
R 330	RS1/16S221J	R 934	RS1/16S103J
R 331	RS1/16S221J	R 935	RS1/16S472J
R 332	RS1/16S221J	R 936	RS1/16S103J
R 333	RS1/16S221J	R 937	RS1/16S270J
R 334	RS1/16S221J	R 938	RS1/16S270J
R 335	RS1/16S221J	R 939	RS1/16S270J
R 336	RS1/16S221J	CAPACITORS	
R 349	RS1/16S473J	C 1	CKSRYB104K16
R 803	RN1/16SE1002D	C 2	CKSRYB104K16
R 804	RN1/16SE3901D	C 3	CKSRYB104K16
R 806	RS1/16S101J	C 4	CKSRYB104K16
R 807	RS1/16S330J	C 5	CKSRYB104K16
R 808	RS1/16S330J	C 6	CKSRYB104K16
R 809	RS1/16S102J	C 7	CKSRYB104K16
R 810	RS1/16S100J	C 8	CKSRYB104K16
R 811	RN1/16SE1001D	C 9	CKSRYB104K16
R 812	RN1/16SE1501D	C 10	CKSRYB104K16
R 813	RN1/16SE3300D	C 11	CKSRYB104K16
R 814	RN1/16SE1001D	C 12	CSZSQ100M6R3
R 815	RN1/16SE3001D	C 13	CKSRYB104K16
R 816	RN1/16SE3300D	C 14	CKSRYB104K16
R 817	RS1/16S332J	C 15	CKSRYB104K16
R 818	RS1/16S473J	C 16	CKSRYB104K16
R 819	RS1/16S102J	C 17	CKSRYB104K16
R 820	RS1/16S101J	C 18	CCSRCH100D50
R 822	RS1/16S473J	C 19	CCSRCH100D50
R 823	RS1/16S104J	C 20	CKSRYB104K16
R 824	RS1/16S150J	C 21	CKSRYB104K16
R 825	RS1/16S224J	C 22	CKSRYB104K16
R 826	RS1/16S224J	C 23	CKSRYB104K16
R 827	RS1/16S150J	C 24	CKSRYB104K16
R 828	RS1/16S104J	C 25	CKSRYB104K16
R 829	RN1/16SE6801D	C 26	CKSRYB104K16
R 833	RS1/16S330J	C 27	CSZSQ100M6R3
R 834	RS1/16S102J	C 28	CKSRYB104K16
R 835	RS1/16S392J	C 29	CKSRYB104K16
R 903	RS1/16S101J	C 30	CKSRYF104Z25
R 904	RS1/16S101J	C 31	CCSRCH5R0D50
R 905	RS1/16S101J	C 32	CCSRCH5R0D50
R 906	RS1/16S101J	C 33	CKSRYB104K16
R 907	RS1/16S101J	C 35	CKSRYB104K16
R 908	RS1/16S101J	C 36	CKSRYB104K16
R 910	RAB4C101J	C 38	CSZS100M10
R 911	RAB4C101J	C 39	CKSRYB104K16
R 912	RAB4C101J	C 40	CKSRYB104K16
R 913	RAB4C101J	C 41	CKSRYB104K16
R 914	RAB4C101J	C 42	CKSRYB104K16
R 915	RAB4C101J	C 44	CKSRYB104K16
R 916	RAB4C101J	C 47	CKSRYB104K16
R 917	RAB4C101J	C 49	CKSRYB104K16
R 918	RAB4C101J	C 54	CCSRCH121J50
		C 55	CKSRYB104K16

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
C 57	CKSBRYB104K16	C 228	CKSBRYB104K16
C 60	CKSBRYB104K16	C 230	CCSRCH150J50
C 63	CKSBRYB104K16	C 231	CCSRCH120J50
C 64	CKSBRYB104K16	C 232	CKSBRYB104K16
C 66	CKSBRYB104K16	C 233	CKSBRYB104K16
C 67	CSZSQ100M6R3	C 234	CKSBRYB104K16
C 68	CSZS330M6R3	C 235	CKSBRYB104K16
C 69	CSZS330M6R3	C 237	CKSBRYB104K16
C 70	CSZS330M6R3	C 238	CKSBRYB104K16
C 71	CKSBRYF103Z50	C 239	CKSBRYB104K16
C 72	CKSBRYF103Z50	C 240	CKSBRYB104K16
C 73	CKSBRYF104Z25	C 241	CKSBRYB104K16
C 74	CKSBRYF104Z25	C 242	CKSBRYB104K16
C 75	CKSBRYF104Z25	C 243	CKSBRYB104K16
C 76	CKSBRYB104K16	C 244	CKSBRYB104K16
C 78	CKSBRYB104K16	C 245	CKSBRYB104K16
C 79	CKSBRYB104K16	C 246	CKSBRYB104K16
C 101	CKSBRYB104K16	C 247	CKSBRYB104K16
C 102	CKSBRYB104K16	C 248	CKSBRYB104K16
C 103	CKSBRYB104K16	C 249	CSZS100M10
C 104	CKSBRYB104K16	C 250	CSZS100M10
C 105	CKSBRYB104K16	C 251	CSZS100M10
C 106	CKSBRYB104K16	C 252	CSZS100M10
C 107	CKSBRYB104K16	C 253	CKSBRYF104Z25
C 108	CKSBRYB104K16	C 301	CKSBRYF104Z25
C 109	CKSBRYB104K16	C 302	CKSBRYB334K10
C 110	CSZSQ100M6R3	C 303	CKSBRYF104Z25
C 111	CKSBRYB104K16	C 306	CKSBRYF104Z25
C 112	CKSBRYF224Z16	C 323	CSZS100M10
C 113	CSZSQ100M6R3	C 324	CKSBRYB104K16
C 114	CKSBRYB104K16	C 327	CSZS100M10
C 115	CKSBRYF224Z16	C 328	CKSBRYB104K16
C 116	CKSBRYF104Z25	C 329	CSZS100M10
C 117	CSZSQ100M6R3	C 330	CSZS4R7M10
C 118	CKSBRYB104K16	C 331	CSZS4R7M10
C 119	CKSBRYF104Z25	C 332	CKSBRYB104K16
C 120	CKSBRYF104Z25	C 339	CSZS100M10
C 121	CKSBRYF104Z25	C 341	CCSRCH101J50
C 122	CKSBRYF104Z25	C 342	CKSBRYF104Z25
C 123	CKSBRYF103Z50	C 343	CKSBRYB102K50
C 124	CCSRCH101J50	C 802	CSZSR101M6R3
C 125	CKSBRYF104Z25	C 804	CCSRCH680J50
C 126	CKSBRYF104Z25	C 805	CSZSR101M6R3
C 201	CKSBRYB104K16	C 806	CKSBRYB104K16
C 202	CKSBRYB104K16	C 808	CKSBRYB105K10
C 203	CKSBRYB104K16	C 809	CCSRCH101J50
C 204	CKSBRYB104K16	C 810	CCG1111
C 205	CKSBRYB104K16	C 811	CCSRCH470J50
C 206	CKSBRYB104K16	C 812	CKSBRYB475K10
C 207	CKSBRYB104K16	C 813	CKSBRYF474Z16
C 208	CKSBRYB104K16	C 814	CKSBRYF474Z16
C 209	CKSBRYB104K16	C 815	CCG1150
C 211	CKSBRYB104K16	C 816	CCG1150
C 213	CKSBRYB104K16	C 817	CCSRCH221J50
C 214	CKSBRYB104K16	C 819	CCH1366
C 215	CKSBRYB104K16	C 820	CCH1366
C 216	CKSBRYB104K16	C 821	CKSBRYB682K50
C 217	CKSBRYB104K16	C 822	CKSBRYB224K10
C 220	CSZS100M10	C 823	CKSBRYB103K25
C 221	CKSBRYB104K16	C 824	CKSBRYB223K25
C 222	CKSBRYB104K16	C 825	CKSBRYB103K25
C 223	CKSBRYB224K10	C 826	CKSBRYB104K16
C 224	CKSBRYB104K16	C 827	CCG1150
C 225	CKSBRYB104K16	C 828	CCG1150
C 227	CKSBRYB104K16	C 829	CKSBRYF104Z25

# AVIC-90DVD,9DVDII

====Circuit Symbol and No.====Part Name

C	830	CKSRF104Z25
C	831	CSZS100M6R3
C	832	CKSRF103Z50
C	833	CKSRF104Z25
C	834	CKSRF103Z50
C	835	CKSRF103Z50
C	836	CKSRF104Z25
C	837	CKSRF103Z50
C	901	CKSRF104Z25
C	902	CKSRF104Z25
C	903	CKSRF104Z25
C	904	CKSRF104Z25
C	905	CKSRF104Z25
C	906	CKSRF104Z25
C	907	CKSRF104Z25
C	908	CKSRF104Z25
C	909	CKSRF104Z25
C	910	CKSRF104Z25
C	911	CKSRF104Z25
C	912	CKSRF104Z25
C	913	CKSRF104Z25
C	914	CKSRF104Z25

**F** Unit Number : CWX2591(AVIC-90DVD/UC)  
: CWX2590(AVIC-9DVDII/EW)  
Unit Name : GPS Unit

## MISCELLANEOUS

IC	401	IC	UPC2749T
IC	402	IC	UPB1006GS
IC	441	IC	NJM2100V
IC	461	IC	ADC12H034CIMS
IC	501	IC	PD3390A
IC	502	IC (AVIC-90DVD/UC)	PD6362B
IC	502	IC (AVIC-9DVDII/EW)	PD6361B
IC	503	IC	M5M5V216ATP-70HI
IC	504	IC	MAX6364PUT29
IC	532	IC (AVIC-9DVDII/EW)	LC72720YVS
Q	441	Transistor	2SB1132
D	401	Diode	1SV314
D	501	Diode	RB751V40
L	401	Inductor	CTF1549
L	402	Inductor	CTF1486
L	403	Inductor	CTF1486
L	404	Inductor	LCSA3N3R1608
L	405	Inductor	LCYB22NJ1608
L	406	Inductor	LCYB22NJ1608
L	407	Inductor	CTF1410
L	408	Inductor (AVIC-90DVD/UC)	CTF1556
L	408	Inductor (AVIC-9DVDII/EW)	CTF1410
L	409	Inductor	LCTB1R0K2125
L	410	Inductor	CTF1547
L	412	Inductor	CTF1547
L	413	Inductor	CTF1547
L	414	Inductor	CTF1547
L	415	Inductor	CTF1547
L	416	Inductor	CTF1547
L	417	Inductor	CTF1547
L	418	Inductor	CTF1410
L	441	Inductor	CTF1410
L	442	Inductor	CTF1410
L	461	Inductor	CTF1410
L	462	Inductor	CTF1410
L	467	Inductor	CTF1547
L	468	Inductor	CTF1547
L	469	Inductor	CTF1410
L	501	Inductor	CTF1410
L	502	Inductor	CTF1410

====Circuit Symbol and No.====Part Name

L	503	Inductor	CTF1410
L	504	Inductor	CTF1410
L	531	Inductor	CTF1410
X	401	TCXO 16.368MHz	CWX2381
X	501	Radiator 32.768kHz	CSS1319
X	502	Radiator 20.00MHz	CSS1549
X	532	Radiator 4.332MHz (AVIC-9DVDII/EW)	CSS1550
F	401	Filter	CTF1548

## RESISTORS

R	401	RS1/16SS472J
R	402	RS1/16SS472J
R	403	RS1/16SS122J
R	404	RS1/16SS622J
R	405	RS1/16SS100J
R	406	RS1/16S271J
R	407	RS1/16S2R2J
R	441	RN1/16SE10R0D
R	442	RN1/16SE1501D
R	443	RN1/16SE2402D
R	444	RN1/16SE3302D
R	445	RN1/16SE4702D
R	446	RN1/16SE4702D
R	447	RS1/16S432J
R	448	RN1/16SE1002D
R	449	RN1/16SE2202D
R	450	RN1/16SE3302D
R	451	RS1/16S103J
R	452	RS1/16SS102J
R	454	RS1/16SS102J
R	460	RS1/16S0R0J
R	461	RS1/16SS102J
R	462	RS1/16SS102J
R	463	RAB4CQ102J
R	464	RAB4CQ333J
R	465	RS1/16SS102J
R	468	RS1/16SS471J
R	469	RAB4CQ471J
R	470	RAB4CQ471J
R	471	RAB4CQ104J
R	477	RS1/16SS222J
R	478	RS1/16SS222J
R	479	RS1/16SS222J
R	480	RS1/16SS332J
R	481	RS1/16SS332J
R	482	RS1/16SS223J
R	483	RS1/16SS473J
R	501	RS1/16SS0R0J
R	502	RS1/16SS102J
R	503	RS1/16SS154J
R	508	RS1/16SS103J
R	508	RS1/16SS472J
R	509	RS1/16SS473J
R	510	RS1/16SS102J
R	511	RS1/16SS103J
R	512	RS1/16SS473J
R	513	RS1/16SS103J
R	514	RS1/16SS473J
R	515	RS1/16SS473J
R	517	RS1/16SS103J
R	519	RS1/16SS473J
R	521	RS1/16SS473J
R	532	RS1/16SS104J
R	533	RS1/16SS103J
R	533	RS1/16SS332J

====Circuit Symbol and No.====Part Name

R 534  
R 535  
R 536  
R 537 (AVIC-9DVDII/EW)  
R 538 (AVIC-9DVDII/EW)

Part No.

RS1/16SS103J  
RS1/16SS103J  
RS1/16SS0R0J  
RS1/16S0R0J  
RS1/16SS0R0J

## CAPACITORS

C 401  
C 402  
C 403  
C 404  
C 405  
  
C 406  
C 407  
C 408  
C 409  
C 410

CCSRCH100D50  
CCSSCH101J50  
CKSSYB104K10  
CCSSCH101J50  
CCSRUJ220J50  
  
CCSRUJ220J50  
CKSSYB333K16  
CKSSYB182K50  
CSZS100M6R3  
CKSSYB103K16

C 411  
C 412  
C 413  
C 414  
C 415

CKSSYB102K50  
CKSSYB102K50  
CKSSYB104K10  
CKSSYB104K10  
CKSSYB104K10

C 416  
C 417  
C 418  
C 419  
C 420

CKSSYB104K10  
CKSSYB104K10  
CKSSYB102K50  
CKSSYB104K10  
CKSSYB104K10

C 421  
C 422  
C 423  
C 424  
C 425

CKSSYB102K50  
CKSSYB103K16  
CKSSYB104K10  
CCSRCH102J50  
CCSRCH271J50

C 426  
C 427  
C 428  
C 429  
C 430

CCSRCH102J50  
CKSSYB104K10  
CKSSYB103K16  
CCSRCH301J50  
CCSSCH120J50

C 431  
C 432  
C 433  
C 434  
C 435

CCSRCH301J50  
CKSSYB103K16  
CCSRCH101J50  
CKSSYB102K50  
CKSSYB103K16

C 436  
C 441  
C 442  
C 443  
C 444

CKSSYB104K10  
CKSSYB104K16  
CCSRCH101J50  
CKSSYB104K16  
CKSSYB103K16

C 445  
C 461  
C 462  
C 463  
C 464

22μF/6.3V

CKSSYB104K10  
CCH1408  
CKSSYB104K16  
CKSSYB104K16  
CKSSYB103K16

C 465  
C 466  
C 467  
C 468  
C 469

CKSSYB103K16  
CKSSYB103K16  
CKSSYB103K16  
CKSSYB104K10  
CSZS100M10

C 470  
C 471  
C 501  
C 502  
C 503

CKSSYB104K10  
CCSSCH101J50  
CKSSYB104K10  
CCSRCH150J50  
CCSRCH150J50

C 504  
C 506  
C 507  
C 508  
C 509

CKSSYB104K10  
CKSSYB104K10  
CKSSYB104K10  
CKSSYB104K10  
CKSSYB104K10

====Circuit Symbol and No.====Part Name

C 511  
C 512  
C 514  
C 515  
C 516

Part No.

CKSSYB104K10  
CKSSYB104K10  
CSZS100M6R3  
CKSSYB104K10  
CKSSYB104K10

C 517  
C 518  
C 535  
C 539  
C 540

(AVIC-9DVDII/EW)  
(AVIC-9DVDII/EW)  
(AVIC-9DVDII/EW)

CKSSYB104K10  
CKSSYB104K10  
CSZS100M6R3  
CCSRCH100D50  
CCSRCH100D50

C 541  
C 542  
C 543  
C 544  
C 545

(AVIC-9DVDII/EW)  
(AVIC-9DVDII/EW)  
(AVIC-9DVDII/EW)  
(AVIC-9DVDII/EW)  
(AVIC-9DVDII/EW)

CCSRCH561J50  
CKSSYB104K10  
CSZS100M6R3  
CCSRCH331J50  
CKSSYB104K10

Main Unit  
Consists of  
Main PCB  
Interface PCB  
Grille PCB  
G-Sensor PCB

**ABCD**

Unit Number : CWM8484  
(AVIC-90DVD/UC)  
: CWM8482  
(AVIC-9DVDII/EW)  
Unit Name : Main Unit

## MISCELLANEOUS

IC 571 IC  
IC 601 IC  
IC 602 IC  
IC 603 IC  
IC 604 IC

S-81250SGUP  
PE5228A  
TC7SET08FU  
TC7SET08FU  
TC7SH08FU

IC 605 IC  
IC 606 IC  
IC 607 IC  
IC 608 IC  
IC 609 IC

TC7SH08FU  
TC7S14FU  
TC7SET08FU  
TC7W32FU  
TC7SH04FU

IC 610 IC  
IC 612 IC  
IC 613 IC  
IC 631 IC  
IC 661 IC

TC7W126FU  
TC7SET08FU  
TC7SET08FU  
S-8423AFS  
PAJ002A

IC 662 IC  
IC 663 IC  
IC 665 IC  
IC 1801 IC  
IC 1850 IC

TPD1018F  
TPD1018F  
NJM2904M  
NJM2903V  
TPS5103IDB

IC 1851 IC  
IC 1951 IC  
IC 3001 IC  
IC 3002 IC  
IC 3004 IC

TPS5103IDB  
M5237ML  
TC7S66F  
TC7SET08F  
TC7SZ08FU

IC 3005 IC  
IC 3006 IC  
IC 3007 IC  
IC 3601 IC  
IC 3602 IC

CXA1645M  
NJM2246M  
NJM2244M  
NJM3404AM  
NJM2904M

IC 3752 IC  
IC 3753 IC  
IC 3851 IC  
IC 3901 IC  
IC 3902 IC

TC74HC4053AFT  
TC7SET08FU  
NJM3404AM  
NJM2068MD  
NJM3414AM

IC 3903 IC  
IC 3926 IC  
IC 3927 IC  
IC 3951 IC  
IC 3952 IC

NJM2068MD  
TDA7052A  
NJM2904M  
NJM4558M  
TC7S66FU

# AVIC-90DVD,9DVDII

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
IC 3953 IC	NJM4558M	D 1807 Diode	S1G-6904G2P
IC 5001 IC	UPD4723GS	D 1808 Diode	S1G-6904G2P
Q 551 Chip Transistor (AVIC-9DVDII/EW)	2SC2712	D 1809 Diode	MA8180(M)
Q 635 Transistor	2SA1036K	D 1810 Diode	MA8180(M)
Q 636 Transistor	DTC114EU	D 1811 Diode	MA8180(M)
Q 661 Transistor	2SB1184F5	D 1812 Diode	KS926S2
Q 662 Transistor	DTC114EU	D 1817 Diode	UDZ13(B)
Q 664 Transistor	DTC114EU	D 1818 Diode	HZU7R5(B3)
Q 665 Transistor	2SA1162	D 1841 Diode	MA110
Q 667 Transistor	2SC2712	D 1850 Diode	RB400D
Q 668 Transistor	2SC2712	D 1851 Diode	RB400D
Q 669 Transistor	DTC114EU	D 1852 Diode	RB060L-40
Q 670 Transistor	DTB113ZK	D 1853 Diode	RB060L-40
Q 671 Transistor	UMD2N	D 1951 Diode	S1G-6904G2P
Q 672 Transistor	UMD2N	D 2851 LED	CL150PGCD(AB)
Q 673 Transistor	DTC114EU	D 2852 LED	CL150PGCD(AB)
Q 675 Transistor	DTC143EU	D 2853 LED	CL150PGCD(AB)
Q 1802 Transistor	DTC114EU	D 2854 Diode	CL150RCD
Q 1803 Transistor	IMD3A	D 2855 LED	CL150PGCD(AB)
Q 1804 Transistor	2SD2098	D 2856 Diode	MA8062(H)
Q 1805 Transistor	2SA1037K	D 2860 LED	CL150PGCD(AB)
Q 1806 Transistor	DTC114EU	D 2861 Chip LED	CL220UBXTS
Q 1841 Transistor	2SA1037K	D 2862 Diode	CL150RCD
Q 1842 Transistor	DTC114EU	D 2863 LED	CL150PGCD(AB)
Q 1852 FET	RK4936	D 2864 LED	CL150PGCD(AB)
Q 1853 FET	RK4936	D 2865 Diode	MA8062(H)
Q 1951 Transistor	2SB1572	D 3001 Diode	UDZS10(B)
Q 1952 Transistor	2SB1184F5	D 3002 Diode	UDZS10(B)
Q 1953 Transistor	DTC114EU	D 3003 Diode	UDZS10(B)
Q 2851 Transistor	IMD3A	D 3004 Diode	UDZS10(B)
Q 2852 Transistor	DTC114EU	D 3005 Diode	UDZS10(B)
Q 3001 Transistor	2SC2712	D 3151 Diode	UDZS6R8(B)
Q 3151 Transistor	2SC2712	D 3152 Diode	UDZS6R8(B)
Q 3851 Transistor	DTC323TU	D 3153 Diode	UDZS6R8(B)
Q 3852 Transistor	DTC323TU	D 3154 Diode	UDZS6R8(B)
Q 3853 Transistor	DTC323TU	D 3155 Diode	UDZS10(B)
Q 3857 Transistor	IMD2A	D 3156 Diode	UDZS10(B)
Q 3858 Transistor	IMD2A	D 3157 Diode	1SS355
Q 3859 Transistor	IMD2A	D 3158 Diode	UDZS10(B)
Q 3901 Transistor	DTC144EU	D 3159 Diode	UDZS10(B)
Q 3902 Transistor	DTC323TK	D 3160 Diode	UDZS10(B)
Q 3903 Transistor	DTC323TK	D 3851 Diode	DAP202U
Q 3904 Transistor	IMD2A	D 3852 Diode	DAP202U
Q 3905 Transistor	DTC323TU	D 3853 Diode	DAP202U
Q 3906 Transistor	DTC144EU	D 3901 Diode	1SS355
Q 3907 Transistor	IMD2A	D 3902 Diode	MA8047(M)
Q 5001 Transistor (AVIC-90DVD/UC)	2SD1760F5	D 3904 Diode	DAP202U
D 551 Diode (AVIC-9DVDII/EW)	HZU3R3(B1)	D 3905 Diode	1SS355
D 552 Diode	UDZS5R6(B)	D 5001 Diode	UDZS6R8(B)
D 601 Diode	1SS355	D 5006 Diode	MA8120(H)
D 661 Diode	RB751V40	D 5007 Diode	MA8120(H)
D 663 Diode	UDZ20(B)	D 5008 Diode	MA8120(H)
D 664 Diode	UDZS6R8(B)	D 5009 Diode	MA8120(H)
D 665 Diode	1SS355	D 5010 Diode	MA8120(H)
D 666 Diode	1SS355	D 5011 Diode	MA8120(H)
D 667 Diode	1SS355	D 5016 Diode	MA8120(H)
D 668 Diode	1SS355	D 5017 Diode	MA8120(H)
D 669 Diode	UDZS6R8(B)	D 5018 Diode	UDZS6R8(B)
D 670 Diode	RB500V-40	D 5019 Diode	MA8120(H)
D 671 Diode	RB500V-40	D 5020 Diode	MA8120(H)
D 1801 Diode	5KP22A	D 5021 Diode	MA8120(H)
D 1803 Diode	MA738	D 5022 Diode	MA8120(H)
D 1804 Diode	S1G-6904G2P	D 5027 Diode	MA8110(H)
D 1805 Diode	S1G-6904G2P	D 5028 Diode	MA8110(H)
D 1806 Diode	S1G-6904G2P	D 5029 Diode (AVIC-90DVD/UC)	MA8056(H)

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
ZNR 551 Surge Protector (AVIC-9DVDII/EW)	RCCA-201Q43UA-PI	L 3259 Inductor	CTF1557
L 551 Inductor (AVIC-9DVDII/EW)	CTF1295	L 3260 Inductor	CTF1557
L 552 Inductor (AVIC-9DVDII/EW)	CTF1295	L 3261 Inductor	CTF1557
L 553 Inductor (AVIC-9DVDII/EW)	CTF1295	L 3262 Inductor	CTF1557
L 554 Inductor (AVIC-9DVDII/EW)	CTF1295	L 3263 Inductor	CTF1557
L 555 Inductor (AVIC-9DVDII/EW)	CTF1295	L 3264 Inductor	CTF1557
L 556 Inductor (AVIC-9DVDII/EW)	CTF1295	L 3265 Inductor	CTF1557
L 557 Inductor (AVIC-9DVDII/EW)	CTF1295	L 3266 Inductor	CTF1557
L 571 Inductor	CTF1295	L 3267 Inductor	CTF1557
L 572 Inductor	CTF1295	L 3268 Inductor	CTF1557
L 573 Inductor	CTF1295	L 3269 Inductor	CTF1557
L 601 Inductor	CTF1410	L 3270 Inductor	CTF1557
L 602 Inductor	CTF1410	L 3271 Inductor	CTF1557
L 603 Inductor	CTF1410	L 3272 Inductor	CTF1557
L 604 Inductor	CTF1410	L 3273 Inductor	CTF1557
L 605 Inductor	CTF1410	L 3274 Inductor	CTF1556
L 606 Inductor	CTF1410	L 3751 Inductor	CTF1410
L 607 Inductor	CTF1410	L 3752 Inductor	CTF1410
L 608 Inductor	CTF1410	L 3951 Inductor	CTF1410
L 609 Inductor	CTF1410	L 3952 Inductor	CTF1410
L 610 Inductor	CTF1410	L 3953 Inductor	CTF1410
L 611 Inductor	CTF1410	L 3954 Inductor	CTF1410
L 612 Inductor	CTF1410	L 3955 Inductor	CTF1410
L 661 Inductor	CTF1295	L 3956 Inductor	CTF1410
L 664 Inductor	CTF1390	L 5001 Inductor	CTF1410
L 665 Inductor	CTF1295	L 5002 Inductor	CTF1334
L 666 Inductor	CTF1410	L 5003 Inductor	CTF1334
L 667 Inductor	CTF1410	L 5004 Inductor	CTF1334
L 668 Inductor	CTF1410	L 5007 Inductor	CTF1334
L 1802 Inductor	CTF1556	L 5008 Inductor	CTF1334
L 1803 Inductor	CTF1556	L 5009 Inductor	CTF1334
L 1804 Inductor	CTF1556	L 5010 Inductor	CTF1557
L 1805 Inductor	CTF1556	L 5011 Inductor	CTF1557
L 1806 Inductor	CTF1556	L 5012 Inductor (AVIC-90DVD/UC)	CTF1557
L 1841 Inductor	CTF1556	X 601 Ceramic Resonator 12.583MHz	CSS1108
L 1850 Inductor	CTH1254	S 2851 Switch(EJECT)	CSG1106
L 1851 Inductor	CTH1255	S 2852 Switch(RESET)	CSG1120
L 1852 Inductor	CTH1257	S 2853 Spring Switch(PC-CARD)	CSN1051
L 1853 Inductor	CTH1257	FU 1801 Fuse 2A	CEK1190
L 2851 Inductor	CTF1295	FU 1802 Fuse 4A	CEK1199
L 2852 Inductor	CTF1295	FU 1803 Fuse 2.3A	ICPS2R3
L 2853 Inductor	CTF1295	FU 1804 Fuse 4A	CEK1199
L 2854 Inductor	CTF1295	FU 1850 Fuse 1A	CEK1191
L 2855 Inductor	CTF1295	FU 3251 Fuse 1A	CEK1191
L 3001 Inductor	CTF1410	GY 572 Sensor	CSX1052
L 3002 Inductor	CTF1410	GY 573 Sensor	CSX1042
L 3003 Inductor	CTF1410	EF 1801 EMI Filter	CCG1025
L 3005 Inductor	LCTA680J3225	EF 3001 EMI Filter	CCG1081
L 3006 Inductor	CTF1410	EF 3002 EMI Filter	CCG1081
L 3025 Inductor	CTF1410	EF 3003 EMI Filter	CCG1081
L 3151 Inductor	CTF1557	EF 3004 EMI Filter	CCG1081
L 3152 Inductor	CTF1558	EF 3005 EMI Filter	CCG1081
L 3153 Inductor	CTF1557	EF 3006 EMI Filter	CCG1081
L 3154 Inductor	CTF1557	EF 3151 EMI Filter	CCG1067
L 3157 Inductor	CTF1306	EF 3152 EMI Filter	CCG1067
L 3158 Inductor	CTF1306	EF 3251 EMI Filter	CCG1030
L 3159 Inductor	CTF1306	EF 3252 EMI Filter	CCG1030
L 3251 Inductor	CTF1556	EF 5001 EMI Filter	CCG1030
L 3252 Inductor	CTF1556	FE 551 Tuner Unit (AVIC-9DVDII/EW)	CWE1622
L 3253 Inductor	CTF1556	GPS Unit (AVIC-90DVD/UC)	CWX2591
L 3254 Inductor	CTF1556	GPS Unit (AVIC-9DVDII/EW)	CWX2590
L 3255 Inductor	CTF1556		
L 3256 Inductor	CTF1556		
L 3257 Inductor	CTF1556		
L 3258 Inductor	CTF1556		
		RESISTORS	
		R 551 (AVIC-9DVDII/EW)	RS1/10S473J
		R 552 (AVIC-9DVDII/EW)	RS1/10S473J
		R 554 (AVIC-9DVDII/EW)	RS1/10S472J
		R 555 (AVIC-9DVDII/EW)	RS1/10S471J
		R 556 (AVIC-9DVDII/EW)	RS1/10S473J

# AVIC-90DVD,9DVDII

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
R 557 (AVIC-9DVDII/EW)	RS1/10S474J	R 685	RS1/16S471J
R 558 (AVIC-9DVDII/EW)	RS1/10S0R0J	R 686	RS1/10S103J
R 561	RN1/16SE1001D	R 687	RS1/16S562J
R 562	RN1/16SE1101D	R 688	RS1/16S473J
R 563	RN1/16SE1001D	R 689	RS1/16S393J
R 572	RS1/10S151J	R 690	RS1/16S224J
R 573	RS1/10S105J	R 691	RS1/16S103J
R 574	RS1/16S104J	R 692	RS1/16S0R0J
R 575	RS1/16S0R0J	R 693	RS1/16S103J
R 601	RS1/16S473J	R 694	RS1/16S0R0J
R 602	RS1/16S473J	R 695	RS1/16S473J
R 603	RS1/16S104J	R 696	RS1/16S104J
R 605 (AVIC-90DVD/UC)	RS1/16S104J	R 697	RS1/16S0R0J
R 606 (AVIC-9DVDII/EW)	RS1/16S104J	R 698	RS1/16S333J
R 607	RS1/16S104J	R 699	RS1/16S203J
R 610	RS1/16S104J	R 700	RS1/16S822J
R 612	RS1/16S104J	R 701	RS1/16S202J
R 613	RS1/16S473J	R 702	RS1/16S564J
R 614	RS1/16S0R0J	R 703	RS1/16S102J
R 615	RS1/16S104J	R 704	RS1/16S102J
R 617	RS1/16S473J	R 705	RS1/16S513J
R 618	RS1/16S105J	R 706	RS1/16S513J
R 619	RS1/16S473J	R 707	RS1/16S104J
R 620	RS1/16S473J	R 708	RS1/16S513J
R 622	RS1/16S472J	R 709	RS1/16S473J
R 626	RS1/16S104J	R 710	RS1/16S563J
R 627	RS1/16S104J	R 711	RS1/16S104J
R 628	RS1/16S472J	R 715	RS1/16S102J
R 629	RS1/16S104J	R 716	RS1/16S102J
R 630	RS1/16S473J	R 717	RS1/16S471J
R 631	RS1/16S102J	R 720	RS1/10S0R0J
R 632	RS1/16S104J	R 1801	RN1/10SE4701D
R 633	RS1/16S104J	R 1802	RS1/10S473J
R 635	RS1/16S104J	R 1803	RS1/10S102J
R 637	RS1/16S102J	R 1804	RS1/4S102J
R 638	RS1/16S104J	R 1805	RS1/10S224J
R 639	RS1/16S104J	R 1806	RS1/10S103J
R 640	RS1/16S104J	R 1807	RS1/10S103J
R 641	RS1/16S104J	R 1808	RS1/8S0R0J
R 642	RS1/16S104J	R 1820	RS1/4S471J
R 643	RS1/16S223J	R 1821	RN1/16SE8201D
R 644	RS1/16S682J	R 1822	RN1/16SE1502D
R 645	RS1/16S104J	R 1823	RN1/16SE2702D
R 646	RS1/16S104J	R 1824	RN1/16SE3303D
R 647	RS1/16S104J	R 1825	RS1/16S332J
R 648	RS1/16S104J	R 1826	RS1/16S273J
R 649	RS1/16S473J	R 1827	RS1/16S273J
R 662	RS1/8S2R2J	R 1828	RS1/16S332J
R 663	RS1/16S102J	R 1841	RS1/10S103J
R 665	RS1/16S333J	R 1842	RS1/10S103J
R 666	RS1/16S153J	R 1843	RS1/16S102J
R 667	RS1/16S104J	R 1844	RS1/16S104J
R 668	RS1/16S104J	R 1850	RS1/16S101J
R 669	RS1/16S104J	R 1851	RS1/16S101J
R 670	RS1/16S102J	R 1852	RN1/16SE1600D
R 671	RS1/16S102J	R 1853	RN1/16SE6801D
R 672	RS1/16S102J	R 1854	RN1/16SE1601D
R 673	RS1/16S104J	R 1855	RN1/16SE1600D
R 674	RS1/16S623J	R 1856	RN1/16SE5601D
R 675	RS1/16S363J	R 1857	RN1/16SE1001D
R 679	RS1/16S753J	R 1858	RS1/16S332J
R 680	RS1/16S363J	R 1859	RS1/16S332J
R 682	RS1/10S102J	R 1860	RS1/16S154J
R 683	RS1/16S101J	R 1861	RS1/16S154J
R 684	RS1/16S103J	R 1862	RS1/16S184J



====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
R 1864	RS1/16S184J	R 3233	RS1/16S0R0J
R 1866	RS1/16S100J	R 3234	RS1/16S104J
R 1867	RS1/16S100J	R 3235	RS1/16S104J
R 1868	RS1/16S100J	R 3238	RS1/16S104J
R 1869	RS1/16S100J	R 3240	RS1/16S104J
R 1951	RS1/16S223J	R 3241	RS1/16S104J
R 1952	RS1/4S102J	R 3242	RS1/16S104J
R 1953	RS1/4S102J	R 3243	RS1/16S0R0J
R 1954	RS1/16S221J	R 3250	RS1/16S102J
R 1955	RS1/10S271J	R 3251	RS1/16S0R0J
R 1956	RN1/10SE2702D	R 3252	RS1/16S0R0J
R 1957	RN1/10SE4701D	R 3253	RS1/16S0R0J
R 2851	RS1/8S471J	R 3255	RS1/16S102J
R 2852	RS1/10S620J	R 3256	RS1/16S104J
R 2853	RS1/10S331J	R 3259	RS1/16S104J
R 2854	RS1/10S331J	R 3260	RS1/16S104J
R 2855	RS1/10S331J	R 3262	RS1/16S102J
R 2856	RS1/8S331J	R 3263	RS1/16S104J
R 2857	RS1/10S620J	R 3264	RS1/16S0R0J
R 2858	RS1/10S103J	R 3267	RS1/16S102J
R 2860	RS1/10S271J	R 3268	RS1/16S104J
R 3001	RS1/16S222J	R 3270	RS1/16S105J
R 3002	RS1/16S222J	R 3273	RS1/16S105J
R 3003	RN1/10SE2002D	R 3274	RS1/16S105J
R 3004	RS1/16S473J	R 3278	RS1/16S105J
R 3005	RS1/16S101J	R 3282	RS1/16S102J
R 3006	RS1/16S103J	R 3283	RS1/16S102J
R 3007	RS1/16S272J	R 3601	RS1/16S102J
R 3008	RS1/16S272J	R 3602	RS1/16S102J
R 3009	RS1/16S101J	R 3603	RS1/16S153J
R 3010	RS1/16S301J	R 3604	RS1/16S683J
R 3014	RS1/10S620J	R 3605	RS1/16S682J
R 3015	RS1/10S750J	R 3606	RS1/16S682J
R 3016	RS1/10S750J	R 3607	RS1/16S682J
R 3017	RS1/10S750J	R 3608	RS1/16S104J
R 3018	RS1/10S750J	R 3609	RS1/16S104J
R 3024	RS1/16S105J	R 3610	RS1/16S101J
R 3025	RS1/16S0R0J	R 3611	RS1/16S102J
R 3026	RS1/16S105J	R 3770	RS1/16S0R0J
R 3027	RS1/10S750J	R 3772	RS1/16S104J
R 3028	RS1/16S105J	R 3851	RS1/16S102J
R 3029	RS1/16S910J	R 3852	RS1/16S472J
R 3030	RS1/16S910J	R 3853	RS1/16S152J
R 3031	RS1/16S910J	R 3854	RS1/16S472J
R 3151	RS1/16S473J	R 3855	RS1/16S472J
R 3152	RS1/16S104J	R 3856	RS1/16S472J
R 3153	RS1/10S102J	R 3857	RS1/16S102J
R 3154	RS1/10S102J	R 3859	RS1/16S152J
R 3156	RS1/10S102J	R 3861	RS1/16S472J
R 3157	RS1/10S0R0J	R 3863	RS1/16S333J
R 3158	RS1/10S102J	R 3864	RS1/16S683J
R 3206	RS1/16S102J	R 3865	RS1/16S154J
R 3207	RS1/16S102J	R 3866	RS1/16S101J
R 3208	RS1/16S102J	R 3867	RS1/16S333J
R 3209	RS1/16S102J	R 3868	RS1/16S683J
R 3217	RS1/16S102J	R 3869	RS1/16S473J
R 3218	RS1/16S102J	R 3870	RS1/16S473J
R 3220	RS1/16S0R0J	R 3871	RS1/16S105J
R 3225	RS1/16S101J	R 3872	RS1/16S105J
R 3226	RS1/16S102J	R 3873	RS1/16S154J
R 3227	RS1/16S102J	R 3874	RS1/16S101J
R 3228	RS1/16S102J	R 3901	RS1/16S103J
R 3229	RS1/16S102J	R 3902	RS1/16S473J
R 3230	RS1/16S102J	R 3903	RS1/16S473J
R 3231	RS1/16S102J	R 3904	RS1/16S473J

## AVIC-90DVD,9DVDII

====Circuit Symbol and No.==Part Name		Part No.	====Circuit Symbol and No.==Part Name		Part No.
R	3905	RS1/16S470J	CAPACITORS		
R	3907	RS1/16S0R0J	C	551	(AVIC-9DVDII/EW)
R	3908	RS1/16S473J	C	552	(AVIC-9DVDII/EW)
R	3909	RS1/16S473J	C	553	(AVIC-9DVDII/EW)
R	3910	RS1/16S473J	C	554	(AVIC-9DVDII/EW)
			C	555	(AVIC-9DVDII/EW)
R	3911	RS1/16S470J			
R	3913	RS1/16S223J	C	556	(AVIC-9DVDII/EW)
R	3914	RS1/16S203J	C	557	(AVIC-9DVDII/EW)
R	3915	RS1/16S471J	C	558	(AVIC-9DVDII/EW)
R	3916	RS1/16S471J	C	571	
			C	572	
R	3917	RS1/16S471J			
R	3918	RS1/16S104J	C	573	
R	3919	RS1/16S473J	C	574	
R	3920	RS1/16S473J	C	575	
R	3921	RS1/16S0R0J	C	576	
			C	577	
R	3926	RN1/16SE5602D			
R	3927	RN1/16SE1802D			
R	3928	RS1/16S103J	C	578	
R	3951	RS1/16S104J	C	579	
R	3952	RS1/16S104J	C	601	
			C	602	
R	3953	RS1/16S104J	C	603	
R	3954	RS1/16S104J			
R	3956	RS1/16S104J	C	604	
R	3958	RS1/16S563J	C	605	
R	3959	RS1/16S563J	C	606	
			C	607	
			C	608	
R	3960	RS1/16S563J			
R	3967	RS1/16S0R0J	C	609	
R	3968	RS1/16S0R0J	C	611	
R	3969	RS1/16S0R0J	C	612	
R	3970	RS1/16S0R0J	C	613	
			C	614	
R	3971	RS1/16S0R0J			
R	3972	RS1/16S0R0J	C	631	
R	3981	RS1/16S104J	C	632	
R	3982	RS1/16S104J	C	634	
R	3983	RS1/16S102J	C	635	
			C	651	
R	3986	RS1/16S104J			
R	3987	RS1/16S104J	C	652	
R	3988	RS1/16S104J	C	653	
R	3989	RS1/16S104J	C	654	
R	3990	RS1/16S104J	C	661	
			C	662	
R	3991	RS1/16S101J			
R	3992	RS1/16S104J	C	663	
R	3993	RS1/16S104J	C	664	
R	3994	RS1/16S104J	C	665	
R	3995	RS1/16S0R0J	C	666	
			C	667	
R	3996	RS1/16S101J			
R	3997	RS1/16S473J	C	668	
R	3998	RS1/16S152J	C	669	
R	5004	RS1/16S681J	C	672	
R	5006	RS1/16S681J	C	673	
			C	674	
R	5007	RS1/16S681J			
R	5008	RS1/16S681J	C	675	
R	5009	RS1/16S101J	C	676	
R	5010	RS1/16S101J	C	679	
R	5011	RS1/16S101J	C	682	
			C	684	
R	5012	RS1/16S101J			
R	5015	RS1/16S101J	C	685	
R	5016	RS1/16S101J	C	686	
R	5017	RS1/16S101J	C	687	
R	5018	RS1/16S681J	C	1801	
			C	1803	
R	5019	RS1/16S681J			
R	5020	(AVIC-90DVD/UC) RS1/10S122J	C	1804	
R	5021	(AVIC-90DVD/UC) RS1/10S122J	C	1805	
R	5022	RS1/16S100J	C	1806	
			C	1807	
			C	1808	
					CKSQYB473K50
					CEV100M16
					CKSQYB473K50
					CEV100M16
					CEV100M16
					CKSQYB473K50
					CKSQYB103K50
					CKSQYB473K50
					CEV1R0M50
					CKSQYF334Z25
					CKSRYF104Z25
					CEVQ101M10
					CKSQYB105K16
					CKSRYB104K16
					CKSRYB104K16
					CKSQYB103K25
					CKSYB106K6R3
					CKSRYF104Z25
					CKSRYF104Z25
					CKSRYF104Z25
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					CKSRYF104Z25
					CK

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
C 1809	CKSBYB104K16	C 3018	CEV221M4
C 1810	CCH1412	C 3019	CEV221M4
C 1811	CKSBYB104K16	C 3020	CEV221M4
C 1831	CKSBYB103K50	C 3021	CCH1410
C 1832	CKSBYB103K50	C 3022	CEV100M10
C 1833	CEV101M16	C 3023	CCH1410
C 1834	CKSBYB103K50	C 3025	CEV100M10
C 1835	CKSBYB473K50	C 3026	CKSBYB105K6R3
C 1836	CKSBYB103K50	C 3027	CKSBYB105K6R3
C 1841	CKSBYB104K16	C 3028	CKSBYB103K50
C 1842	CKSBYB104K16	C 3029	CEVQ101M10
C 1850	CKSBYB103K50	C 3031	CEV100M10
C 1851	CKSBYB153K50	C 3032	CKSBYB105K6R3
C 1852	CCSRCH101J50	C 3033	CKSBYB103K50
C 1853	CCSRCH101J50	C 3034	CCSRCH680J50
C 1854	CKSBYB104K16	C 3151	CKSBYB102K50
C 1855	CKSBYB104K16	C 3152	CKSBYB102K50
C 1856	CKSBYB103K50	C 3153	CKSBYB102K50
C 1857	CCSRCH330J50	C 3154	CCSRCH101J50
C 1858	CKSBYB105K10	C 3155	CCSRCH101J50
C 1859	CKSBYB103K50	C 3156	CKSBYB102K50
C 1860	CCSRCH330J50	C 3157	CKSBYB104K16
C 1861	CKSBYB105K10	C 3158	CKSBYB104K16
C 1862	CKSYB475K10	C 3159	CKSBYB102K50
C 1863	CKSYB475K10	C 3160	CKSBYB102K50
C 1864	CCG1111	C 3251	CEV101M10
C 1865	CKSBYF474Z16	C 3252	CKSBYF105Z10
C 1866	CCG1111	C 3253	CEV220M10
C 1867	CKSBYF474Z16	C 3254	CKSBYF105Z10
C 1868	CCG1150	C 3256	CKSBYB105K6R3
C 1869	CCG1150	C 3258	CKSBYF105Z10
C 1870	CCH1332	C 3259	CEVQ101M10
C 1871	CCH1332	C 3260	CKSBYF104Z25
C 1872	CCH1332	C 3261	CEVQ101M10
C 1873	CKSBYF104Z25	C 3601	CEVQ220M16
C 1874	CKSBYF104Z25	C 3602	CKSBYB473K50
C 1875	CCG1150	C 3603	CKSBYF104Z25
C 1876	CCG1150	C 3604	CEVQ220M16
C 1877	CCG1150	C 3605	CKSBYB184K10
C 1878	CCG1150	C 3606	CKSBYB473K50
C 1879	CCG1150	C 3607	CKSBYB224K16
C 1880	CCG1150	C 3608	CEV100M16
C 1881	CKSBYB102K50	C 3609	CKSBYF104Z25
C 1951	CKSBYB474K10	C 3610	CEV220M16
C 1952	CKSQYB105K16	C 3611	CKSBYB103K50
C 1953	CEV101M10	C 3612	CSZSR100M16
C 2851	CKSQYB102K50	C 3753	CKSBYB104K16
C 2853	CKSBYB102K50	C 3754	CKSBYB104K16
C 2854	CKSQYB104K50	C 3851	CKSBYF104Z25
C 3001	CCSRCH5R0C50	C 3852	CKSBYB471K50
C 3002	CKSBYF104Z25	C 3853	CCSRCH680J50
C 3003	CKSBYF104Z25	C 3854	CKSBYF105Z10
C 3004	CKSBYF104Z25	C 3855	CKSBYB471K50
C 3006	CKSBYB104K16	C 3856	CEV100M16
C 3007	CKSBYB104K16	C 3857	CKSBYB105K10
C 3008	CKSBYB104K16	C 3858	CKSBYB474K10
C 3009	CKSBYF104Z25	C 3859	CKSBYB105K10
C 3010	CEVQ470M16	C 3860	CKSBYB474K10
C 3011	CKSBYB103K50	C 3861	CCSRCH680J50
C 3012	CCSRCH470J50	C 3862	CKSBYF105Z10
C 3013	CCSRCH220J50	C 3901	CEV100M16
C 3014	CEV100M16	C 3902	CCSRCH151J50
C 3015	CKSBYF104Z25	C 3903	CCSRCH330J50
C 3016	CKSBYB103K50	C 3904	CCSRCH151J50
C 3017	CEVQ470M16	C 3905	CCSRCH330J50

## AVIC-90DVD.9DVDII

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
C 3907	CKSRYF104Z25	IC 1401	IC
C 3909	CEVNP100M16	IC 1403	IC
C 3910	CEVNP100M16	IC 1404	IC
C 3911	CKSRYF104Z25	IC 1405	IC
C 3912	CKSRYB105K6R3	IC 1500	IC
C 3913	CEV100M16	IC 1501	IC
C 3914	CEV100M16	IC 1502	IC
C 3915	CKSRYF104Z25	IC 1503	IC
C 3918	CKSRYB105K10	IC 1504	IC
C 3920	CSZSR100M16	IC 1506	IC
C 3926	CKSRYF105Z10	IC 1509	IC
C 3927	CKSRYB105K6R3	IC 1601	IC
C 3928	CEV1R0M50	IC 1700	IC
C 3929	CKSRYF104Z25	IC 1701	IC
C 3930	CKSRYB105K10	IC 1702	IC
C 3931	CEVQ101M10	IC 1704	IC
C 3932	CKSRYB103K50	IC 1705	IC
C 3933	CKSRYF104Z25	IC 1706	IC
C 3955	CKSRYF104Z25	IC 1801	IC
C 3956	CKSRYB105K6R3	IC 1802	IC
C 3958	CKSRYB105K6R3	IC 1803	IC
C 3959	CKSRYB221K50	IC 1804	IC
C 3960	CKSRYB561K50	Q 1102	Transistor
C 3962	CEV220M16	Q 1104	Transistor
C 3963	CCSRCH121J50	Q 1105	Transistor
C 3964	CEVNP2R2M35	Q 1107	Transistor
C 3965	CEVNP2R2M35	Q 1108	Transistor
C 3971	CKSRYB391K50	Q 1109	Chip Transistor
C 3972	CKSRYB471K50	Q 1110	Chip Transistor
C 3973	CCSRCH121J50	Q 1111	Chip Transistor
C 3974	CCSRCH820J50	Q 1600	Transistor
C 3975	CKSRYB102K50	Q 1601	Transistor
C 3976	CEV220M16	Q 1602	Transistor
C 3977	CKSRYF104Z25	Q 1603	Transistor
C 3978	CKSRYB105K10	Q 1700	Transistor
C 3980	CKSRYB105K10	D 1100	Diode
C 5001	CKSRYB105K6R3	D 1101	Diode
C 5002	CEV1R0M50	D 1401	Diode
C 5003	CEV1R0M50	D 1601	Chip Diode
C 5004	CEV1R0M50	D 1800	Diode
C 5005	CEV1R0M50	D 1801	Diode
C 5006	CEV1R0M50	D 1802	Diode
C 5008	CKSRYB102K50	D 1803	Diode
C 5010	CKSRYB102K50	D 1804	Diode
C 5011	CKSRYB102K50	L 1201	Inductor
C 5012	CKSRYB102K50	L 1202	Inductor
C 5013	CKSRYB102K50	L 1401	Inductor
C 5014	CKSRYB102K50	L 1402	Inductor
C 5015	CEV330M6R3	L 1403	Inductor
C 5022	CKSRYB105K6R3	L 1404	Inductor
C 5023	CKSRYB103K25	L 1500	Inductor
C 5025	CEV100M16	L 1501	Inductor
C 5026	CKSRYB473K16	L 1502	Inductor
C 5027	CEV220M6R3	L 1503	Inductor
C 5028	CKSRYB473K16	L 1504	Inductor
C 5029	CKSRYB103K25	L 1505	Inductor
		L 1506	Inductor
		L 1507	Inductor
		L 1508	Inductor
		L 1509	Inductor
		L 1512	Inductor
		L 1600	Inductor
		L 1602	Inductor
		L 1700	Inductor
		L 1701	Inductor
			CTF1470
			CTF1473
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			CTF1395
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====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
L 1702 Inductor	CTF1473	R 1153	RS1/16SS154J
L 1704 Inductor	CTF1473	R 1154	RS1/16SS154J
L 1720 Inductor	CTF1473	R 1156	RS1/16SS224J
L 1732 Inductor	CTF1547	R 1157	RS1/16SS0R0J
L 1759 Inductor	CTF1547	R 1201	RS1/16SS203J
L 1760 Inductor	CTF1547	R 1202	RS1/16SS102J
X 1500 Radiator 27MHz	CSS1531	R 1203	RS1/16SS471J
X 1700 Ceramic Resonator 4.97MHz	CSS1575	R 1204	RS1/16SS221J
S 1301 Spring Switch(CLAMP)	CSN1051	R 1205	RS1/16SS221J
S 1302 Spring Switch(L/E ON/OFF)	CSN1051	R 1206	RS1/16SS473J
S 1303 Spring Switch(8cm DETECT)	CSN1051	R 1207	RS1/16SS101J
S 1304 Spring Switch(12cm DETECT)	CSN1051	R 1208	RS1/16SS101J
VR 1500 Semi-fixed 2.2kΩ(B)	CCP1177	R 1209	RS1/16SS473J
F 1600 Filter	CTF1515	R 1210	RS1/16SS222J
		R 1212	RS1/16SS473J
RESISTORS		R 1213	RS1/16SS101J
R 1101	RS1/16SS330J	R 1215	RS1/16SS123J
R 1102	RS1/16SS3R9J	R 1216	RS1/16SS473J
R 1103	RS1/16SS330J	R 1219	RS1/16SS123J
R 1104	RS1/16SS3R9J	R 1220	RS1/16SS105J
R 1105	RS1/16SS122J		
R 1106	RS1/16SS472J	R 1221	RS1/16SS562J
R 1107	RS1/16S6201D	R 1222	RS1/16SS273J
R 1108	RS1/16SS3R9J	R 1223	RS1/16SS273J
R 1109	RS1/16SS3R9J	R 1226	RS1/16SS153J
R 1110	RS1/16S1002D	R 1227	RS1/16SS123J
R 1113	RS1/16S2402D	R 1228	RS1/16SS472J
R 1114	RS1/16SS823J	R 1229	RS1/16SS472J
R 1115	RS1/16SS682J	R 1230	RS1/16SS472J
R 1116	RS1/16SS3R9J	R 1231	RS1/16SS273J
R 1117	RS1/16SS3R9J	R 1232	RS1/16S6801D
R 1118	RS1/16SS223J	R 1233	RS1/16SS273J
R 1119	RS1/16SS202J	R 1234	RS1/16SS183J
R 1120	RS1/16SS105J	R 1235	RS1/16SS102J
R 1121	RS1/16SS105J	R 1242	RAB4CQ221J
R 1122	RS1/16SS103J	R 1245	RS1/16SS562J
R 1123	RS1/16SS103J	R 1246	RS1/16SS242J
R 1124	RS1/16SS103J	R 1251	RS1/16SS473J
R 1125	RS1/16SS103J	R 1255	RS1/16SS0R0J
R 1126	RS1/16SS103J	R 1257	RS1/16S221J
R 1127	RS1/16SS103J	R 1258	RS1/16SS221J
R 1128	RS1/16SS3R9J	R 1259	RS1/16SS221J
R 1129	RS1/16SS3R9J	R 1260	RS1/16SS221J
R 1130	RS1/16SS102J	R 1261	RS1/16SS221J
R 1131	RS1/16SS102J	R 1262	RS1/16SS273J
R 1132	RS1/16SS102J	R 1263	RS1/16SS273J
R 1133	RS1/16SS102J	R 1264	RS1/16SS104J
R 1134	RS1/16SS102J	R 1301	RS1/16S3902D
R 1135	RAB4CQ0R0J	R 1302	RS1/16S3902D
R 1136	RS1/16SS133J	R 1303	RS1/16S3002D
R 1137	RS1/16SS133J	R 1304	RS1/16S3902D
R 1138	RS1/16SS0R0J	R 1305	RS1/16SS221J
R 1139	RS1/16SS0R0J	R 1306	RS1/16SS0R0J
R 1140	RS1/16SS0R0J	R 1307	RS1/16SS221J
R 1141	RS1/16SS0R0J	R 1308	RS1/16S3002D
R 1142	RS1/16SS183J	R 1310	RS1/16SS102J
R 1143	RS1/16SS273J	R 1311	RS1/16S3902D
R 1144	RS1/16SS273J	R 1312	RS1/16S0R0J
R 1145	RS1/16SS0R0J	R 1314	RS1/16SS221J
R 1146	RS1/16SS0R0J	R 1321	RS1/16SS221J
R 1147	RS1/16SS0R0J	R 1323	RS1/16SS104J
R 1148	RS1/16SS0R0J	R 1324	RS1/16SS473J
R 1149	RS1/16SS102J	R 1325	RS1/16SS273J
R 1150	RS1/16SS102J	R 1400	RAB4CQ681J
R 1151	RS1/16SS102J	R 1401	RAB4CQ681J
R 1152	RS1/16SS154J	R 1402	RAB4CQ103J

# AVIC-90DVD,9DVDII

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
R 1403	RS1/16SS222J	R 1539	RAB4CQ391J
R 1404	RAB4CQ820J	R 1540	RAB4CQ391J
R 1405	RS1/16SS221J	R 1541	RAB4CQ391J
R 1406	RS1/16SS103J	R 1542	RAB4CQ391J
R 1407	RAB4CQ220J	R 1543	RAB4CQ391J
R 1408	RAB4CQ220J	R 1544	RAB4CQ391J
R 1409	RS1/16SS103J	R 1545	RAB4CQ391J
R 1410	RAB4CQ220J	R 1546	RS1/16SS103J
R 1411	RAB4CQ220J	R 1548	RS1/16SS103J
R 1412	RAB4CQ0R0J	R 1549	RS1/16SS560J
R 1413	RS1/16SS681J	R 1550	RS1/16SS560J
R 1414	RS1/16SS820J	R 1551	RS1/16SS560J
R 1415	RS1/16SS100J	R 1552	RS1/16SS560J
R 1416	RS1/16SS681J	R 1553	RS1/16SS560J
R 1417	RS1/16SS103J	R 1554	RS1/16SS560J
R 1418	RS1/16SS681J	R 1555	RS1/16SS560J
R 1419	RS1/16SS103J	R 1556	RS1/16SS560J
R 1420	RS1/16SS103J	R 1557	RS1/16SS560J
R 1421	RS1/16SS820J	R 1558	RS1/16SS560J
R 1422	RS1/16SS820J	R 1559	RS1/16SS560J
R 1423	RS1/16SS103J	R 1560	RS1/16SS560J
R 1424	RS1/16SS220J	R 1561	RS1/16SS560J
R 1425	RS1/16SS104J	R 1562	RS1/16SS560J
R 1426	RS1/16SS103J	R 1563	RS1/16SS560J
R 1429	RS1/16S470J	R 1564	RS1/16SS560J
R 1430	RS1/16SS101J	R 1565	RS1/16SS560J
R 1431	RS1/16SS103J	R 1566	RS1/16S101J
R 1434	RS1/16SS681J	R 1567	RS1/16SS560J
R 1436	RS1/16SS103J	R 1568	RS1/16SS560J
R 1437	RS1/16SS103J	R 1569	RS1/16SS560J
R 1438	RS1/16SS221J	R 1570	RS1/16SS560J
R 1439	RAB4CQ0R0J	R 1571	RS1/16SS560J
R 1440	RAB4CQ0R0J	R 1572	RS1/16SS560J
R 1441	RS1/16SS0R0J	R 1573	RS1/16SS560J
R 1442	RS1/16SS221J	R 1574	RS1/16SS560J
R 1443	RS1/16SS221J	R 1575	RS1/16SS560J
R 1500	RS1/16SS560J	R 1577	RS1/16S0R0J
R 1501	RS1/16SS560J	R 1579	RS1/16S0R0J
R 1502	RS1/16SS560J	R 1600	RS1/16SS271J
R 1503	RS1/16SS560J	R 1601	RS1/16SS152J
R 1504	RS1/16SS560J	R 1602	RS1/16SS101J
R 1505	RS1/16SS560J	R 1604	RS1/16S3300D
R 1506	RS1/16SS560J	R 1605	RS1/16SS122J
R 1507	RS1/16SS560J	R 1606	RS1/16SS0R0J
R 1508	RS1/16SS560J	R 1623	RS1/16SS102J
R 1509	RS1/16SS560J	R 1624	RS1/16SS102J
R 1510	RS1/16SS560J	R 1625	RS1/16SS223J
R 1511	RS1/16SS560J	R 1626	RS1/16SS223J
R 1513	RS1/16SS750J	R 1628	RS1/16S68R0D
R 1514	RS1/16SS622J	R 1634	RS1/16SS472J
R 1515	RS1/16SS162J	R 1635	RS1/16SS472J
R 1516	RS1/16SS182J	R 1636	RS1/16SS472J
R 1517	RS1/16SS201J	R 1637	RS1/16SS472J
R 1518	RS1/16SS201J	R 1701	RN1/16SE1502D
R 1519	RS1/16S101J	R 1702	RS1/16SS221J
R 1520	RS1/16S101J	R 1703	RS1/16SS221J
R 1521	RS1/16S101J	R 1704	RS1/16SS104J
R 1523	RS1/16SS221J	R 1705	RS1/16SS103J
R 1524	RS1/16S470J	R 1706	RS1/16SS103J
R 1527	RS1/16SS103J	R 1707	RS1/16SS221J
R 1529	RS1/16SS104J	R 1708	RS1/16SS0R0J
R 1534	RS1/16SS221J	R 1709	RS1/16SS221J
R 1535	RS1/16SS101J	R 1710	RS1/16SS473J
R 1537	RS1/16SS391J	R 1711	RS1/16SS330J
R 1538	RS1/16SS391J	R 1712	RS1/16SS0R0J

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
R 1713	RS1/16SS104J	C 1105	CKSSYB104K10
R 1714	RS1/16SS104J	C 1106	CKSRYB473K25
R 1715	RS1/16SS472J	C 1107	CKSSYB103K16
R 1716	RS1/16SS104J	C 1108	CSZSR101M6R3
R 1717	RS1/16SS473J	C 1109	CKSSYB104K10
R 1718	RS1/16SS104J	C 1110	CKSRYB154K10
R 1719	RS1/16SS104J	C 1111	CCSSCH221J25
R 1720	RS1/16SS473J	C 1114	CCSSCH330J50
R 1721	RS1/16SS104J	C 1115	CKSSYB104K10
R 1722	RS1/16SS104J	C 1116	CCSSCH221J25
R 1723	RS1/16SS473J	C 1117	CKSRYB105K10
R 1724	RS1/16SS221J	C 1118	CKSSYB104K10
R 1725	RS1/16S0R0J	C 1119	CKSSYB104K10
R 1726	RS1/16SS104J	C 1120	CKSSYB104K10
R 1727	RS1/16SS103J	C 1121	CKSSYB104K10
R 1728	RS1/16SS104J	C 1122	CSZSC470M16
R 1729	RS1/16SS104J	C 1123	CKSRYB273K25
R 1730	RS1/16SS473J	C 1124	CKSSYB104K10
R 1733	RS1/16SS104J	C 1125	CKSSYB104K10
R 1734	RS1/16SS104J	C 1126	CKSSYB473K10
R 1735	RS1/16SS222J	C 1127	CCSRCH561J50
R 1736	RS1/16SS221J	C 1128	CKSSYB104K10
R 1737	RS1/16SS221J	C 1129	CKSSYB104K10
R 1738	RS1/16SS104J	C 1130	CCSRCH102J50
R 1739	RS1/16SS103J	C 1131	CCSSCH120J50
R 1740	RS1/16SS103J	C 1133	CCSRCH561J50
R 1741	RS1/16SS221J	C 1134	CKSSYB104K10
R 1742	RS1/16SS104J	C 1136	CCSSCH101J50
R 1743	RS1/16SS221J	C 1137	CCSSCH101J50
R 1744	RS1/16SS221J	C 1138	CCSSCH101J50
R 1745	RS1/16SS221J	C 1139	CKSSYB104K10
R 1746	RS1/16SS221J	C 1140	CKSSYB103K16
R 1747	RS1/16SS222J	C 1141	CKSSYB104K10
R 1748	RS1/16SS473J	C 1142	CKSSYB104K10
R 1749	RS1/16SS104J	C 1143	CKSSYB473K10
R 1750	RS1/16SS472J	C 1144	CKSSYB473K10
R 1751	RS1/16SS103J	C 1145	CKSSYB103K16
R 1752	RS1/16SS104J	C 1146	CKSSYB473K10
R 1753	RS1/16SS104J	C 1148	CKSSYB103K16
R 1754	RS1/16SS104J	C 1201	CKSRYB105K10
R 1755	RS1/16SS104J	C 1202	CCSSCH101J50
R 1756	RS1/16SS473J	C 1203	CKSRYB474K10
R 1757	RS1/16SS472J	C 1204	CCSRCH561J50
R 1758	RS1/16SS104J	C 1205	CCSRCH331J50
R 1762	RS1/16SS104J	C 1206	CKSRYB105K10
R 1763	RS1/16SS104J	C 1207	CKSSYB104K10
R 1764	RS1/16SS104J	C 1208	CCSRCH471J50
R 1766	RS1/16SS104J	C 1209	CCSRCH391J50
R 1771	RS1/16SS104J	C 1210	CKSRYB105K10
R 1772	RS1/16SS104J	C 1211	CCSSCH101J50
R 1773	RS1/16SS104J	C 1212	CKSSYB104K10
R 1774	RS1/16SS473J	C 1213	CKSRYB474K10
R 1775	RS1/16SS221J	C 1214	CCSRCH102J50
R 1776	RS1/16SS104J	C 1215	CCSRCH102J50
R 1777	RS1/16SS104J	C 1216	CKSSYB562K25
R 1778	RS1/16SS0R0J	C 1217	CCSRCH102J50
R 1801	RS1/16S3902D	C 1218	CKSSYB104K10
R 1802	RS1/16S3302D	C 1219	CKSSYB104K10
R 1808	RS1/16SS102J	C 1220	CKSRYB474K10
R 1809	RS1/16SS102J	C 1221	CCSSCH470J50
CAPACITORS		C 1222	CKSRYB183K25
C 1100	CKSRYB105K10	C 1223	CCSRCH102J50
C 1101	CKSRYB473K25	C 1224	CKSSYB104K10
C 1102	CKSSYB103K16	C 1225	CKSSYB104K10
C 1103	CSZSR101M6R3	C 1227	CKSSYB103K16
C 1104	CKSSYB104K10		

# AVIC-90DVD,9DVDII

====Circuit Symbol and No.==Part Name	Part No.	====Circuit Symbol and No.==Part Name	Part No.
C 1228	CKSSYB104K10	C 1525	CKSSYB104K10
C 1229	CCSRCH102J50	C 1526	CKSSYB104K10
C 1230	CKSSYB103K16	C 1527	CKSSYB104K10
C 1231	CKSSYB104K10	C 1528	CKSSYB104K10
C 1232	CKSRYP154K10	C 1529	CKSSYB471K50
C 1233	CKSSYB104K10	C 1530	CKSSYB104K10
C 1234	CKSSYB104K10	C 1532	CKSSYB104K10
C 1235	CKSSYB104K10	C 1534	CCSSCH150J50
C 1236	CKSSYB471K50	C 1535	CKSSYB104K10
C 1241	CKSSYB103K16	C 1536	CKSSYB104K10
C 1242	CKSSYB103K16	C 1537	CCSSCH150J50
C 1243	CKSSYB104K10	C 1538	CKSSYB104K10
C 1300	CKSSYB103K16	C 1539	CKSSYB104K10
C 1301	CKSSYB103K16	C 1540	CKSRYP105K10
C 1304	CKSRYP104K16	C 1541	CKSRYP105K10
C 1305	CEV101M16	C 1542	CKSSYB104K10
C 1308	CKSSYB104K10	C 1543	CKSSYB104K10
C 1400	CKSSYB104K10	C 1544	CKSSYB104K10
C 1401	CKSSYB104K10	C 1545	CKSSYB104K10
C 1402	CKSSYB104K10	C 1546	CKSSYB104K10
C 1403	CKSSYB104K10	C 1547	CKSSYB104K10
C 1404	CKSSYB104K10	C 1548	CKSSYB104K10
C 1405	CKSSYB104K10	C 1549	CKSSYB104K10
C 1406	CKSSYB104K10	C 1550	CKSSYB104K10
C 1407	CKSSYB104K10	C 1551	CKSSYB104K10
C 1408	CKSSYB104K10	C 1552	CKSSYB104K10
C 1409	CKSSYB104K10	C 1553	CKSSYB104K10
C 1410	CKSSYB104K10	C 1554	CKSSYB104K10
C 1411	CKSSYB104K10	C 1555	CKSSYB104K10
C 1412	CKSSYB104K10	C 1556	CKSSYB104K10
C 1413	CKSSYB104K10	C 1570	CSZSR101M6R3
C 1414	CKSRYP105K10	C 1571	CSZSR101M6R3
C 1415	CKSSYB104K10	C 1572	CEV101M10
C 1416	CKSSYB104K10	C 1573	CEV101M10
C 1417	CCSSCH181J25	C 1574	CSZSC470M10
C 1418	CKSSYB471K50	C 1575	CSZSC470M10
C 1419	CKSSYB104K10	C 1576	CKSSYB104K10
C 1421	CKSSYB104K10	C 1577	CKSSYB104K10
C 1422	CKSSYB104K10	C 1578	CKSSYB104K10
C 1423	CKSSYB104K10	C 1579	CKSSYB104K10
C 1500	CKSSYB104K10	C 1600	CKSRYP104K16
C 1501	CKSSYB224K6R3	C 1601	CSZSR4R7M16
C 1502	CKSSYB104K10	C 1602	CKSSYB102K50
C 1503	CKSSYB224K6R3	C 1608	CSZSR4R7M16
C 1504	CKSSYB224K6R3	C 1609	CSZSR4R7M16
C 1505	CKSSYB224K6R3	C 1634	CCH1349
C 1506	CSZSC101M10	C 1635	CCH1349
C 1507	CKSSYB104K10	C 1636	CKSSYB104K10
C 1508	CKSSYB104K10	C 1637	CKSSYB104K10
C 1509	CKSSYB224K6R3	C 1700	CKSSYB104K10
C 1510	CKSSYB224K6R3	C 1701	CKSSYB104K10
C 1511	CKSSYB104K10	C 1702	CKSRYP105K10
C 1512	CKSSYB104K10	C 1703	CKSRYP105K10
C 1513	CKSSYB104K10	C 1704	CKSSYB104K10
C 1514	CKSSYB104K10	C 1705	CKSRYP105K10
C 1515	CKSSYB104K10	C 1706	CKSSYB104K10
C 1516	CKSSYB104K10	C 1707	CKSRYP105K10
C 1517	CKSSYB104K10	C 1708	CKSSYB104K10
C 1518	CKSSYB104K10	C 1709	CKSSYB104K10
C 1519	CKSSYB104K10	C 1710	CKSSYB104K10
C 1520	CKSSYB104K10	C 1711	CKSSYB104K10
C 1521	CKSSYB104K10	C 1712	CKSSYB103K16
C 1522	CKSSYB104K10	C 1713	CKSSYB104K10
C 1523	CKSSYB104K10	C 1714	CKSYB106K6R3
C 1524	CKSSYB104K10	C 1715	CKSSYB104K10



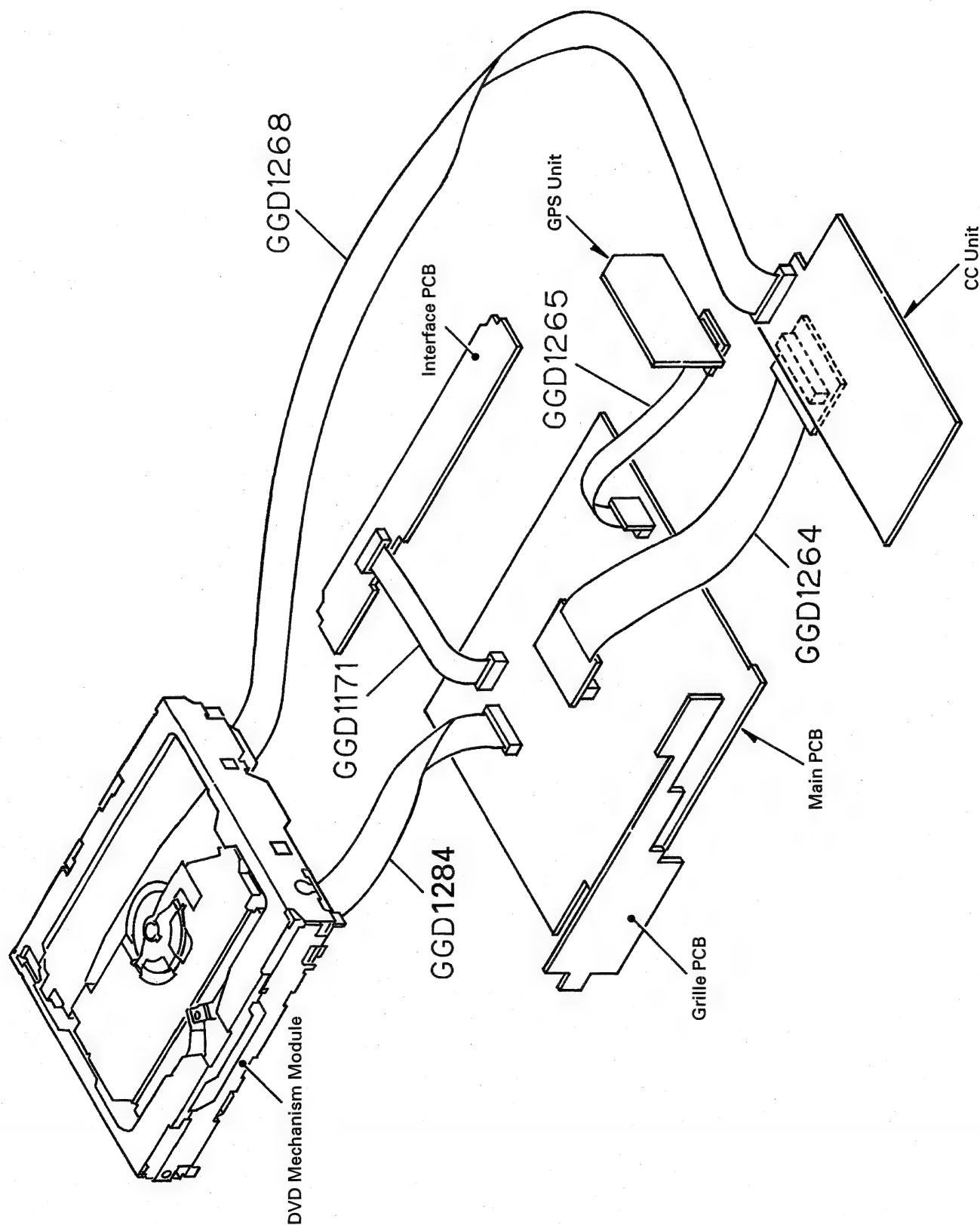
====Circuit Symbol and No.====Part Name		Part No.
C	1716	CKSSYB104K10
C	1717	CKSSYB104K10
C	1719	CKSSYB471K50
C	1720	CKSSYB103K16
C	1721	CKSSYB104K10
C	1722	CKSSYB103K16
C	1800	CKSRYB474K10
C	1801	CKSRYB474K10
C	1802	CKSRYB474K10
C	1803	CKSRYB474K10
C	1804	22μF/6.3V
C	1805	22μF/6.3V
C	1808	CCH1300
C	1809	CCH1300
C	1810	CSZSC101M10
C	1811	CCSRCH102J50
C	1812	CCSRCH102J50
C	1811	CSZSR101M6R3
C	1812	CSZSC101M10

Miscellaneous Parts List

M	1	Pickup Unit(Service)(DP4)	CXX1530
M	2	Motor Unit(LOADING)	CXB5960
M	3	Motor Unit(CARRIAGE)	CXB5955
M	3	Motor(SPINDLE)	CXB6218
		Fan Motor	CXM1192

6. ADJUSTMENT

6.1 JIG CONNECTION DIAGRAM



## 6.2 DVD ADJUSTMENT

### Cautions for servicing

This product uses 5V and 3.3V as standard voltages. The electrical potential that is the reference for signals, is not GND, but VREF (approximately 2.2V) and VHALF (approximately 1.65V).

During product adjustments, if the reference voltage is mistakenly taken as GND, and a grounding contact is made, not only would it be impossible to measure the accurate electrical potential, but also the servo motor would malfunction, resulting in the application of a strong impact on the pick up. The following precautionary measures should be strictly adhered to, in order to avoid such problems.

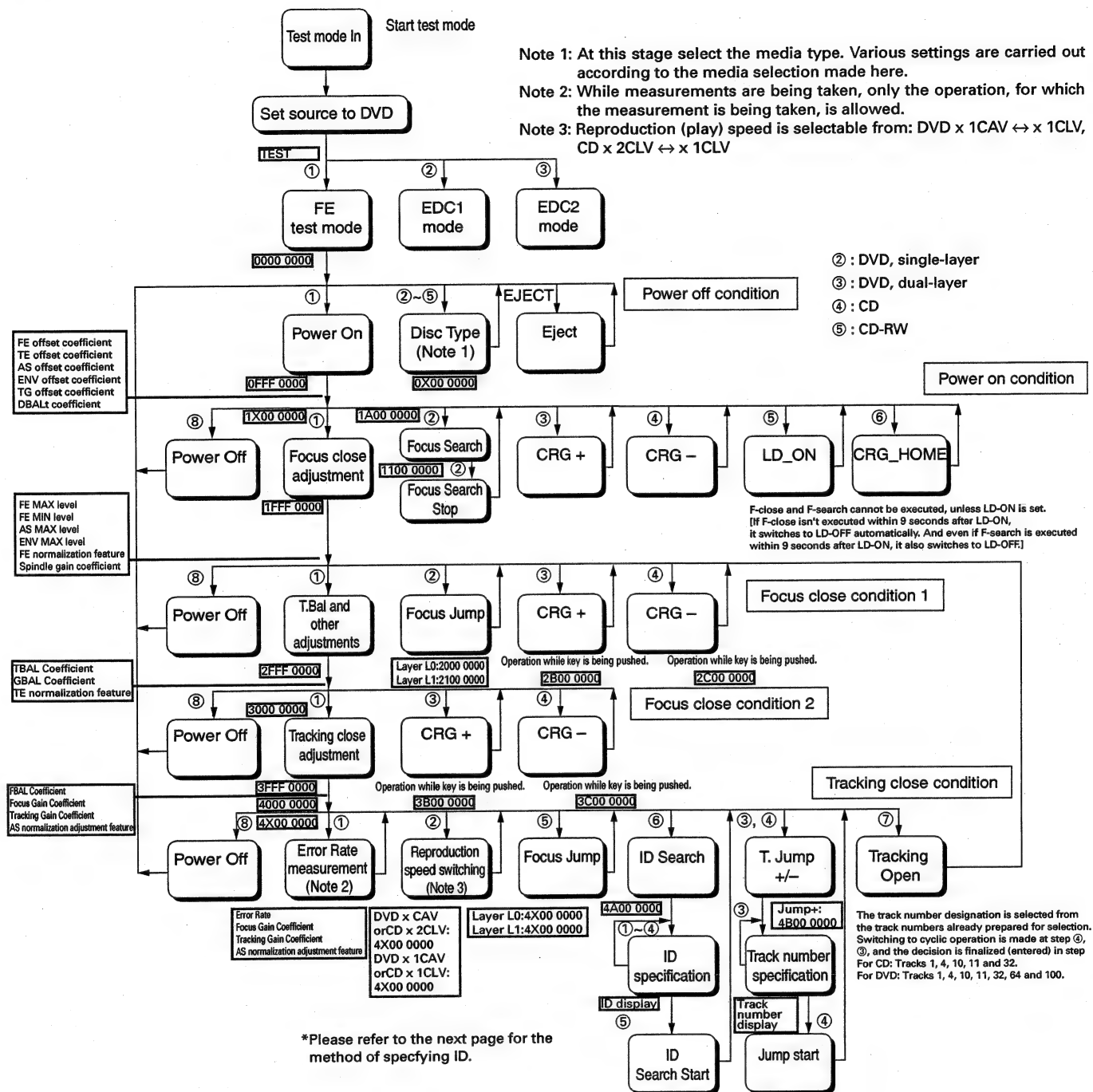
The reference voltage and GND should not be confused when using the minus probe of a measurement device. When an oscilloscope is being used special care should be taken to make sure that the reference voltage is not connected to the probe of ch1 (on the minus side), while the probe of ch2 (on the minus side), is connected to GND. Further, since the body frame of most measurement devices have the same electrical potential as the minus side of the probe, the body frame of the measurement device should be set to floating ground.

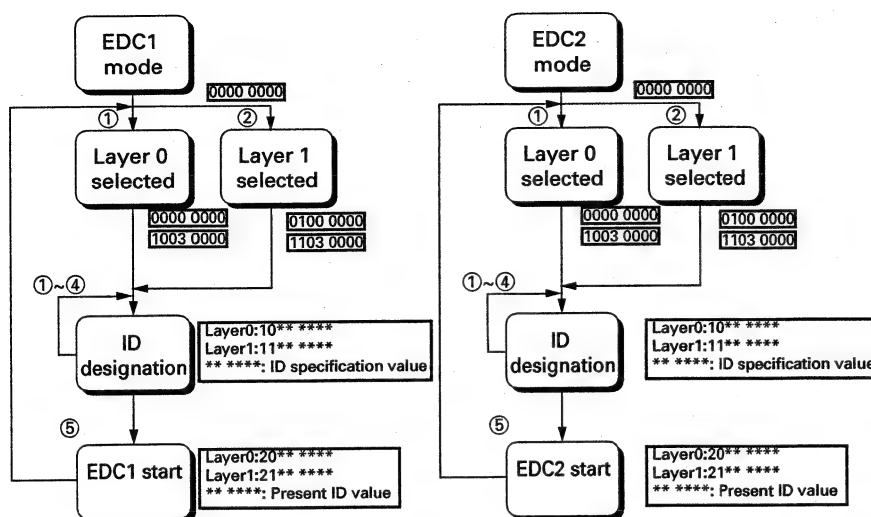
If the reference voltage is connected to GND by mistake, turn the regulator OFF immediately, or turn the power OFF.

- Remove the filters and wires used for measurements only after the regulator has been turned OFF.
- After the power supply is turned on, regulator ON the following adjustment and measurement are promptly done.
- Whenever the product is in the test mode, the software will not take any protective action. For this reason, special care should be taken to make sure that no mechanical or electrical shock could be applied to the product when taking measurements in the test mode.
- Whenever the EJECT key is pressed to eject the disk, no other keys, other than the EJECT key, should be pressed until the disk eject action has been completed.
- Press the EJECT key only after the disk has stopped completely.
- If the product hangs up turn the power OFF immediately.
- Laser diodes may be damaged, if the volume switch for the laser power adjustment of the pick up unit, is turned.
- Test mode starting procedure  
The test mode can be selected from the navigation test mode.

Please use the " remote control unit of the product accessory" after the test mode starts.

## ● Front-End test mode flow chart





#### Method for designating an ID address:

- A number of digits are determined through commands ① and ②. Numerical UP/DOWN operations are performed through commands ③ and ④. The decision is finalized (entered) with command ⑤.

#### OSD display

##### Error Code List

Error status from DVD microcomputer	Contents	Display
0X50	Mecha. error	No display
0X40	No disc	No display
0X30	The temperature is abnormal	Thermal Protection in Motion
0X20	Read error	Error-02-XX
0XE2	Non-playable disc	NON-PLAYABLE DISC
0X90	Different region disc	DIFFERENT REGION DISC
0XFF	Undefined error	Error-FF

#### Error code of read error(Part of XX)

Error Code	Contents	Display
0X99	Data cannot read	Please confirm the disc
0X80	The address cannot be found	Please confirm the disc
0X90	Focus error	Please confirm the disc
0X91	Spindle lock NG	DVD is stopping because mechanism detected abnormality
0X92	Carriage home NG	DVD is stopping because mechanism detected abnormality
0X93	FOK error	Please confirm the disc
0X94	ID/Subcode cannot be read	Please confirm the disc
0X95	High spindle rotation	Please confirm the disc
0X96	Row spindle rotation	DVD is stopping because mechanism detected abnormality
0X98	TOC cannot be found	Please confirm the disc
0X9A	AV chip error	DVD is stopping because mechanism detected abnormality
0X9B	RecoveryNG(BE)	DVD is stopping because mechanism detected abnormality

## AVIC-90DVD,9DVDII

### ● Skew adjustment

If any of the following replacements have been performed on the system, adjustments for pick up, must be conducted:

1. Pick up unit replacement
2. Spindle motor replacement
3. Carriage chassis replacement
4. Pick up unit main shaft replacement
5. Pick up unit sub-shaft replacement

Measurement device and tools : Oscilloscope

Allen key wrench

40-pin flexible extension

Adhesive material(GEM1033)

Screw rock(GYL1001)

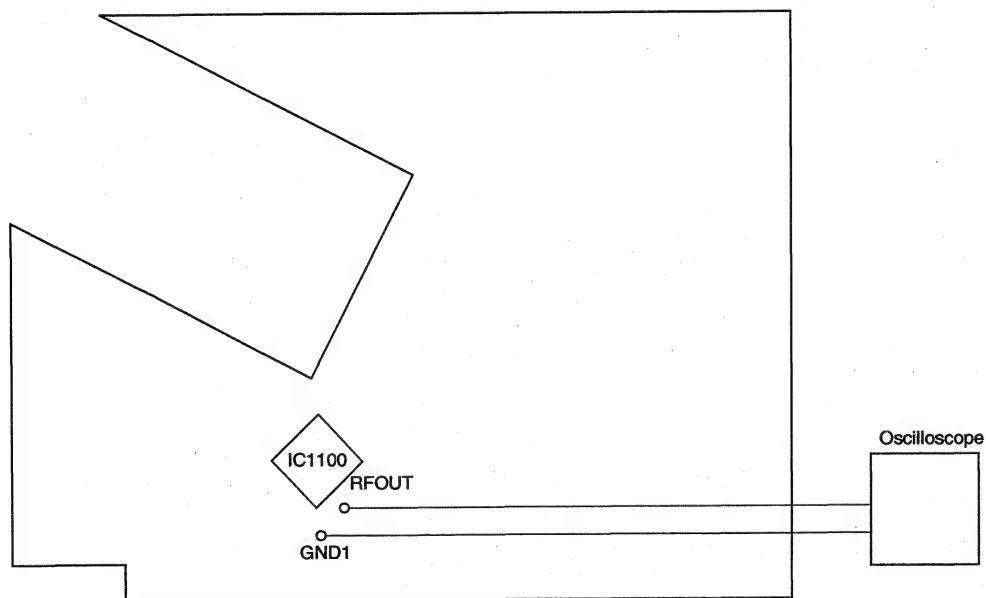
Disk used : GGV1018

Measurement reference : GND1

Measurement point : RFOUT

### Skew adjustment connection diagram

- DVD Core Unit V



Symptoms that can occur if proper adjustments are not made: Error rate reaches  $10^{-3}$  ( $10^{-4}$  or less under normal conditions).

The RF jitter becomes more pronounced - the RF waveform becomes deformed.

Retraction of the tracking and the servo motor, become unstable.

Cautions for performing adjustments: Do not look directly into the laser beam for any prolonged periods of time.

Procedure:

1. Replace the cable, connecting the product's main unit and the DVD mechanical module, with a 40-pin extended flexible cable (GGD1170), and turn the DVD mechanical module upside down, in order to proceed with pick-up unit adjustments.

2. Remove adhesive materials from the pick-up unit, using tweezers.

(Note) Make sure that adhesive material fragments are not scattered while removing the adhesive from the unit. Be also very careful not to exert excessive force on the actuator.

3. Connect the unit to an oscilloscope, referring to the connection diagram.

4. Turn the product power ON, and load the disk for adjustments (GGV1018).

5. Set the disk type to single-layer DVD in the front-end test mode, turn the power ON and then move the pick-up to the middle radius.

6. LD ON.

7. Close in the focus (Do not carry out 'T.Bal adjustment' and 'Tracking close'.)

8. Maximize the level by slightly turning the skew adjustment screw A, while looking at the RF waveform level on the oscilloscope.

Next, maximize the level by turning the skew adjustment screw B, slightly. Repeat this procedure three times and adjust the unit to attain a maximum level.

9. Turn the power OFF in the test mode, and eject the disk after verifying that it has stopped spinning.

10. Apply adhesive and screw lock materials, to the locations specified in the pick-up diagram (shown below).

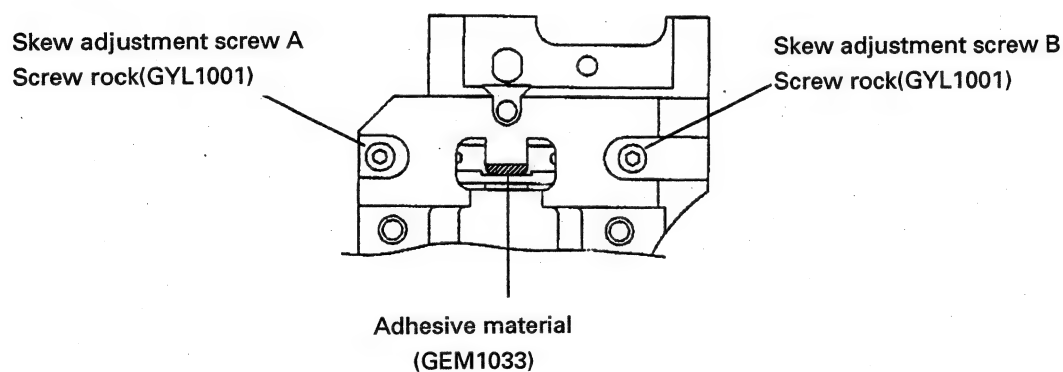
Apply the adhesive material to secure the resin components on the pick-up chassis.

Apply the screw lock material to secure the screws on the pick-up chassis.

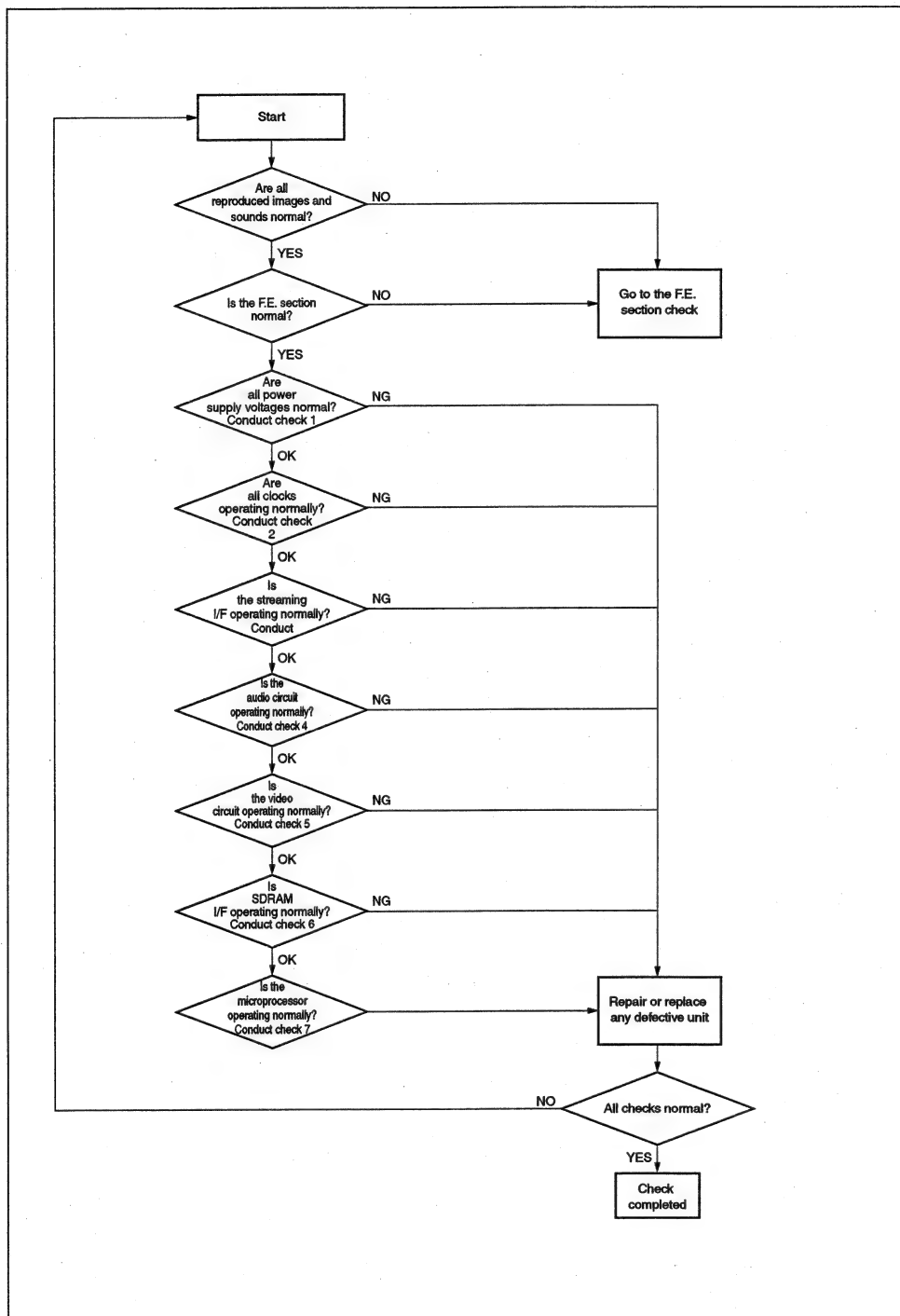
Do not apply any of these materials to the pick-up section or mechanical sections, which are not specified.

Keep the unit away from vibration or shock until the materials securely fix the components and screws in place.

PU diagram



● Back end section check flow chart





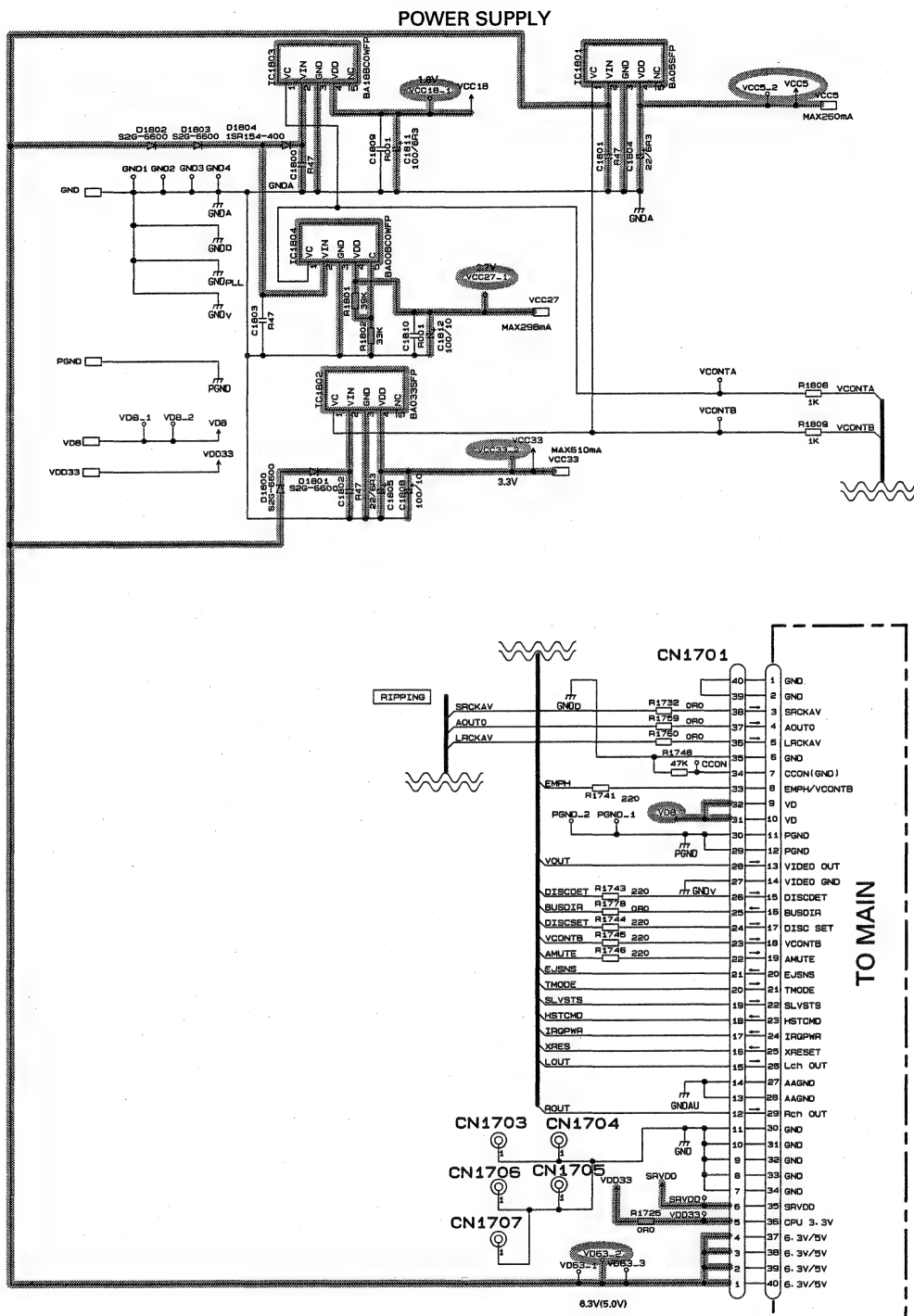
**Check 1: Are all power supply voltages normal?**

Reproduce DVD-REF-A1 Title 1.

Verify the voltage of the sensing pin.

If results are not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in the vicinity of IC1802 through 1804 (the section marked ① in the circuit diagram).

NO.	Verification location	Rated value	Unit
1	VD8-PGND	$8\pm0.3$	V
2	VD63-GND	$6.3\pm0.3$	V
3	VDD33-GND	$3.3\pm0.3$	V
4	SRVDD-GND	$3.3\pm0.3$	V
5	VCC5-GND	$5\pm0.25$	V
6	VCC33-GND	$3.3\pm0.17$	V
7	VCC27-GND	$2.73\pm0.07$	V
8	VCC18-GND	$1.8\pm0.04$	V



Schematic diagram ①

**Check 2: Are all clocks operating normally?**

Reproduce DVD-REF-A1 Title 1.

Verify the circuit described in Figure ②.

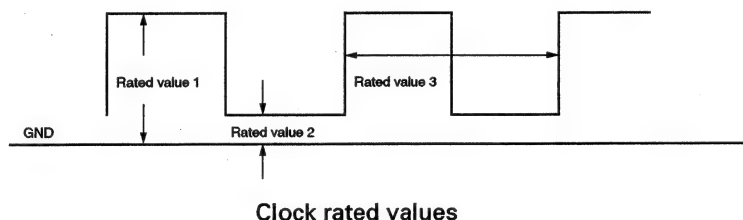
This check is the same for all DVD-V compatible modules.

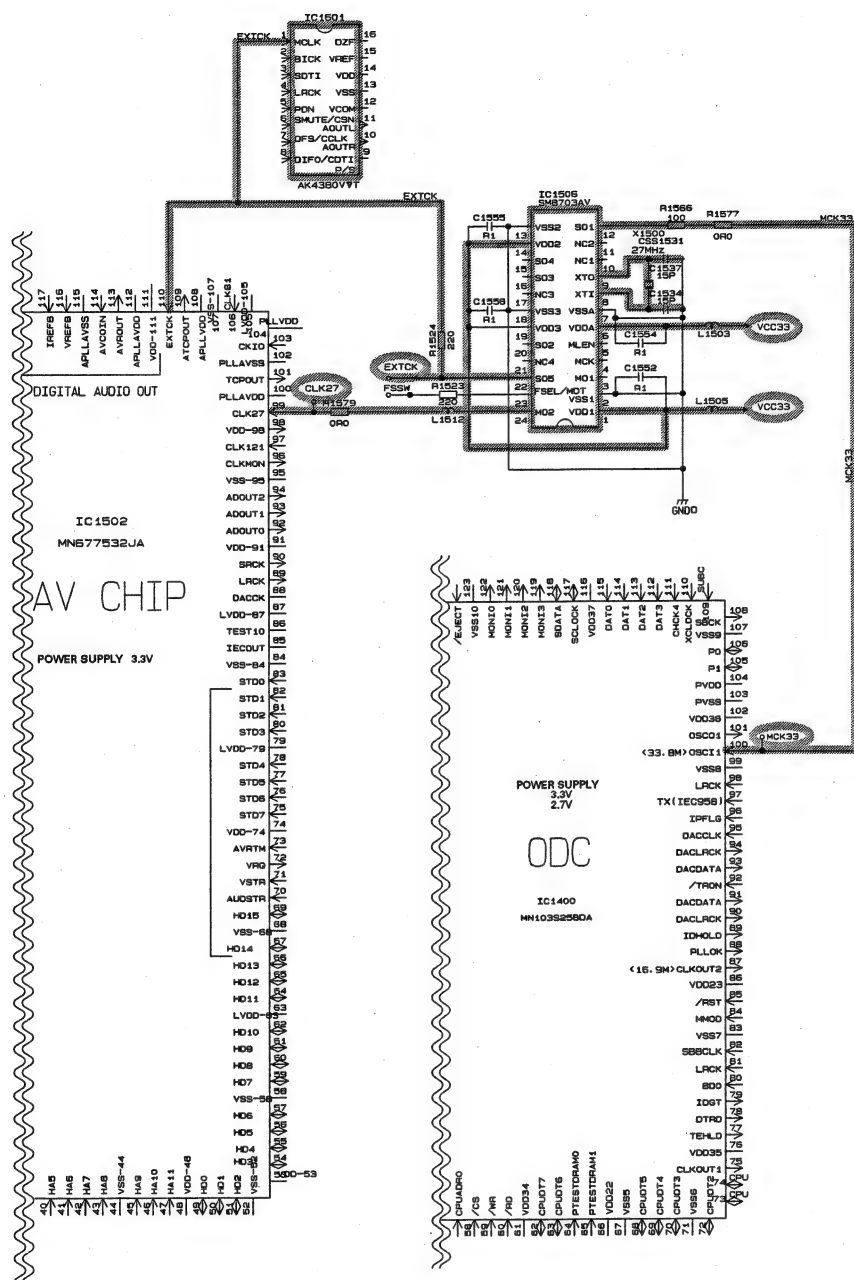
Checks are to be conducted with a GND reference.

If locations listed under "verification location 2", can be verified, there will be no need to perform verifications for the locations listed under "verification location 1."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in the vicinity of IC1506 (the section marked ② in the circuit diagram).

NO.	Verification location 1 (contact measurements)	Verification location 2	Media	Rated value 1	Rated value 2	Rated value 3
1	CLK27	IC1502 99pin	ALL	2.65V~VCC33	GND~0.65V	27MHz±50ppm
2	EXTCK	IC1502 110pin IC1601 1pin	DVD	2.65V~VCC33	GND~0.65V	36.8640MHz±100ppm
3	EXTCK	IC1502 110pin IC1601 1pin	CD	2.65V~VCC33	GND~0.65V	33.8688MHz±100ppm
4	MCK33	IC1400 100pin	ALL	2.33~VCC33	GND~0.99V	33.8688MHz±100ppm





### Schematic diagram ②

### Check 3: Is the streaming I/F operating normally?

Reproduce DVD-REF-A1 Title 1.

Verify the circuit described in Figure ③.

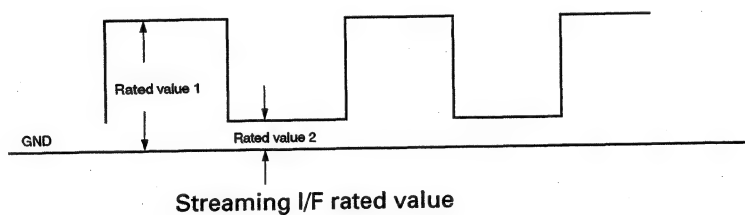
This check is the same for all DVD-V compatible modules.

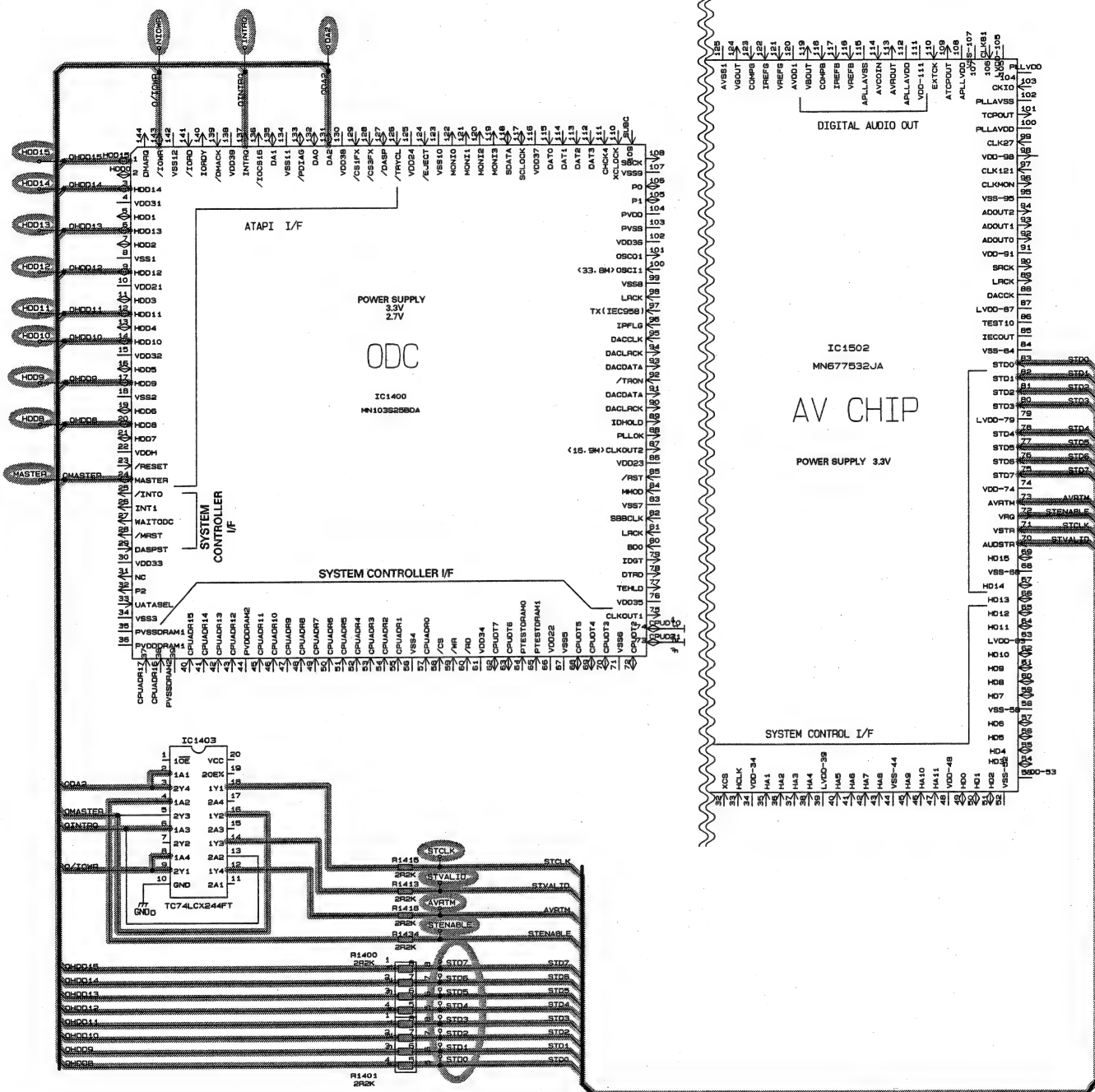
Checks are to be conducted with a GND reference.

If the locations listed under "verification location 2" can be verified, then there is no need to conduct verifications for the locations listed under "verification location 1."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where a problem occurs, for the overall sequence of "output " input" of the checked location.

NO.	Verification location 1 (contact measurements)	Verification location 2	Verification Media	Rated value 1	Rated value 2	Reference waveform	Others
1	STD0	IC1502 83pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD8 at R1401
2	STD1	IC1502 82pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD9 at R1401
3	STD2	IC1502 81pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD10 at R1401
4	STD3	IC1502 80pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD11 at R1401
5	STD4	IC1502 78pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD12 at R1400
6	STD5	IC1502 77pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD13 at R1400
7	STD6	IC1502 76pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD14 at R1400
8	STD7	IC1502 75pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD15 at R1400
9	AVRTM	IC1502 73pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name O/IOWR at IC1403
10	STCLK	IC1502 71pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name ODA2 at IC1403
11	STVALID	IC1502 70pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name O/INTRO at IC1403
12	MASTER	IC1400 24pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name STENABLE at IC1403





Schematic diagram ③

#### Check 4: Is the audio circuit operating normally?

Reproduce DVD-REF-A1 Title 2 Chapter (48k/16-bit/1 kHz/0dB).

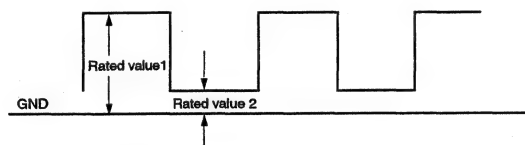
This check is the same for all DVD-V compatible modules.

Checks are to be conducted using GND<sub>DAU1</sub> (sensing pins) as a reference.

If the locations, listed under "verification location 2", can be verified, there is no need to conduct verifications for the locations listed under "verification location 1."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in the vicinity of the main components (the section marked ④ in the circuit diagram circuit diagram).

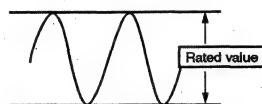
NO.	Verification location 1	Verification location 2	Rated value 1	Rated value 2	Reference waveform
1	AOUT0	IC1601 pin-3	2.2V and over	0.8V and lower	Waveform 3
2	SRCKAV	IC1601 pin-2 For	2.2V and over	0.8V and lower	Waveform 3
4	LRCKAV	IC1601 pin-4	2.2V and over	0.8V and lower	Waveform 3



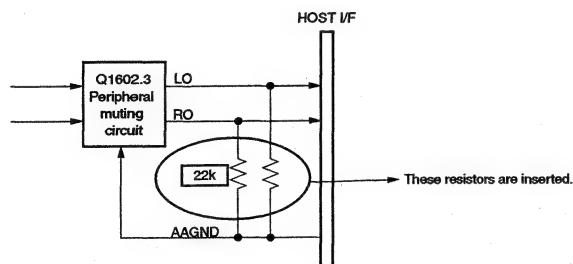
Three serial output rated values

Checks are conducted with the measurement circuit below.

NO.	Verification location 1	Verification location 2	Rated value	Reference waveform
4	LO	CN1701 15pin	1120±150mV	Waveform 4
5	RO	CN1702 12pin	1120±150mV	Waveform 4

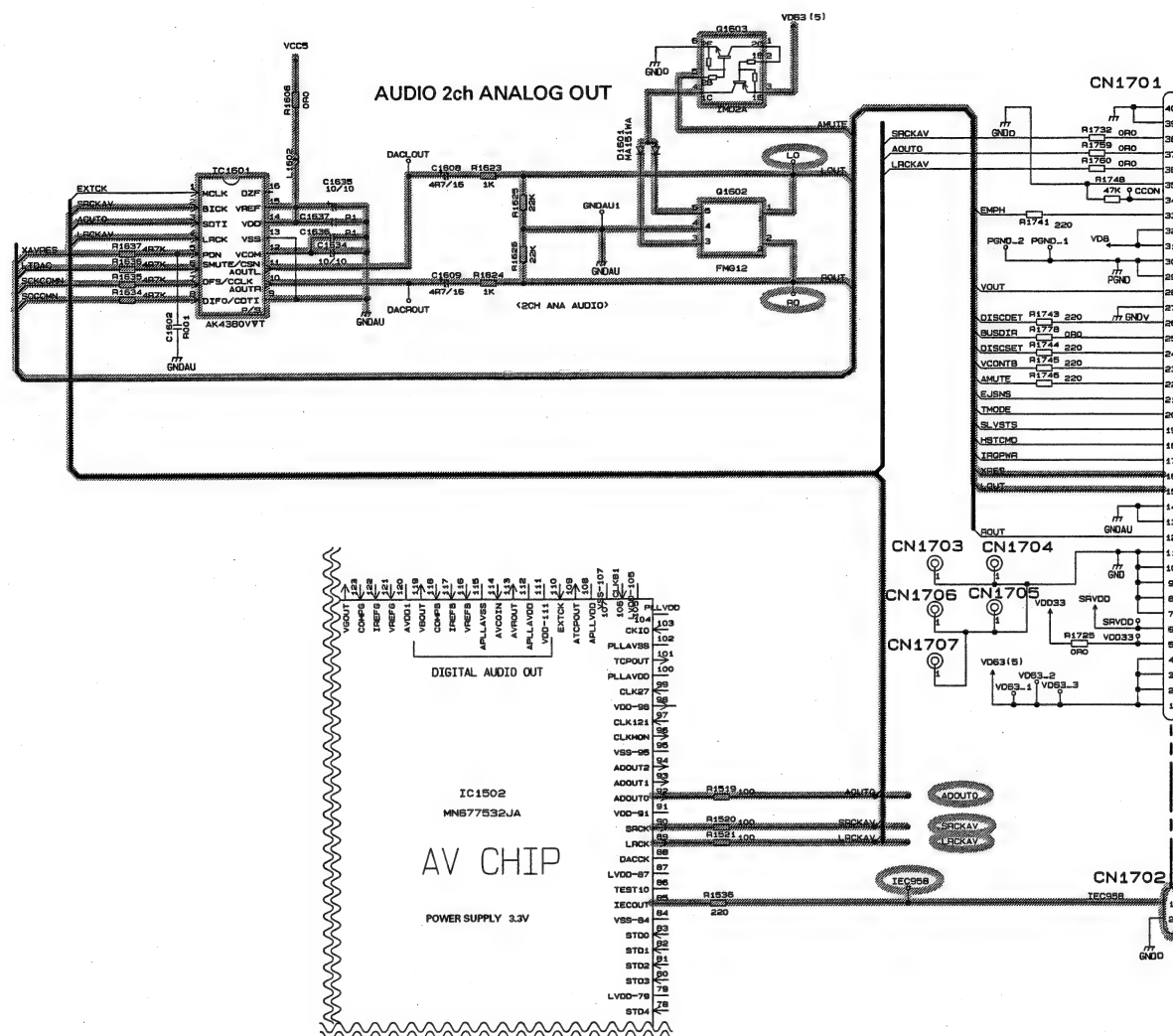


Analog audio outputs (LO and RO) rated values



LO and RO output measurement circuit

NO.	Verification location 1	Verification location 2	Rated value 1	Rated value 2	Reference waveform
6	IEC958	CN1702 1pin	2.2V and over	0.8V and lower	Waveform 5



### Schematic diagram ④



**Check 5: Is the video circuit operated normally?**

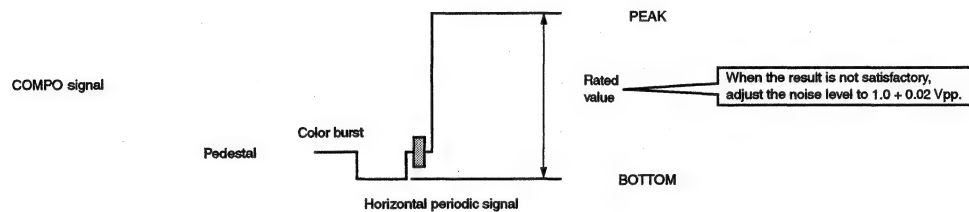
Reproduce DVD-REF-A1 Title 2 Chapters (White 100IRE).

Monitor the output with the oscilloscope, by setting the COMPO signal to a GND reference.

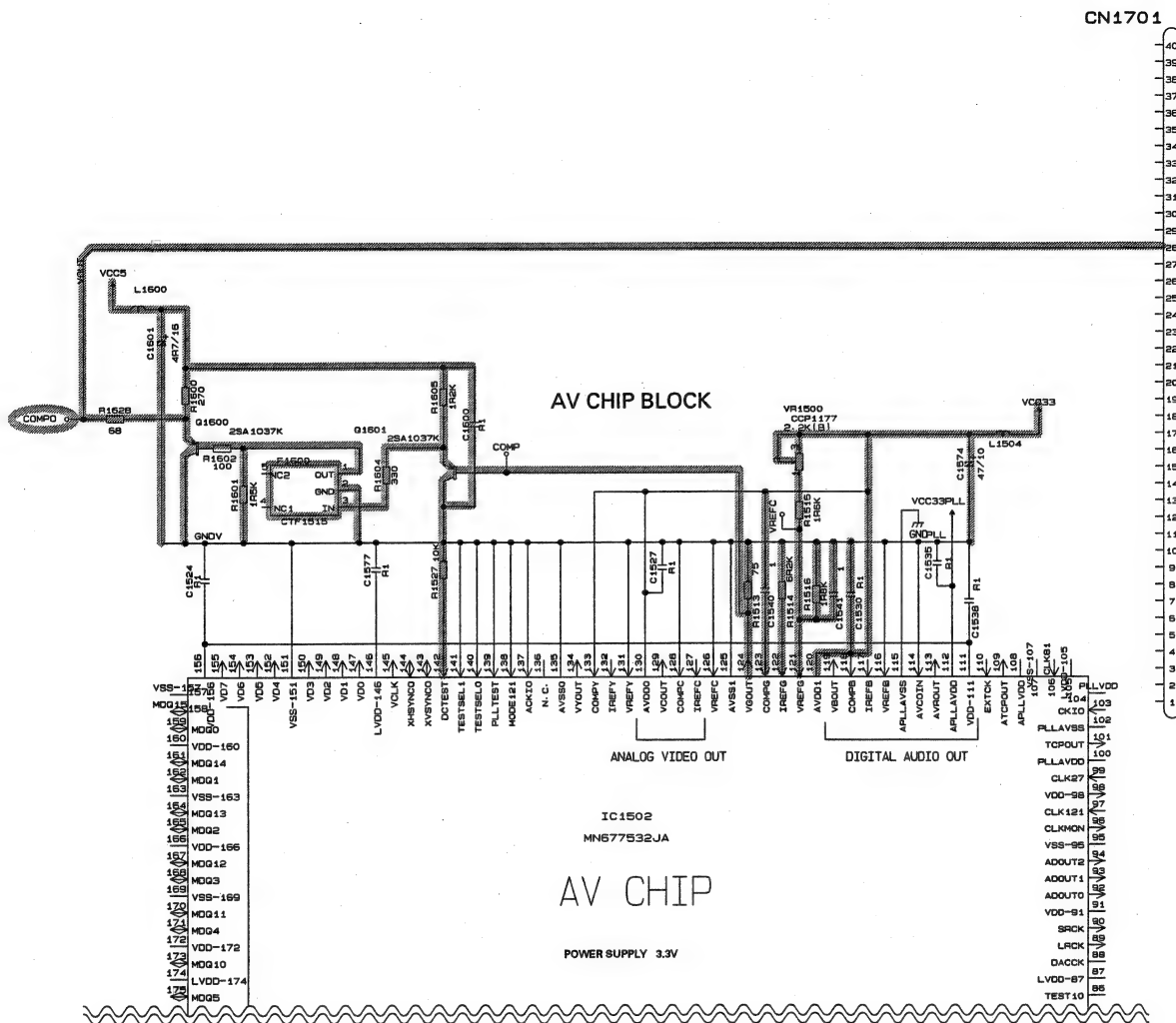
Set the Trigger mode to the TV trigger, and the Trigger line to line-150.

NO.	Verification location (sensing pin)	Rated value	Reference waveform
1	COMPO	$1.0 \pm 0.02V_{pp}$	Waveform 6

If the result is not satisfactory, check to see if there are any problems with resin flux cored solder, parts and components, in the vicinity of line-150 (the section marked ⑤ in the circuit diagram) and peripheral components



Composite signal 100% output waveform



**Schematic diagram ⑤**

# **Check 6: Is SDRAM I/F operating normally?**

Reproduce DVD-REF-A1 Title 1.

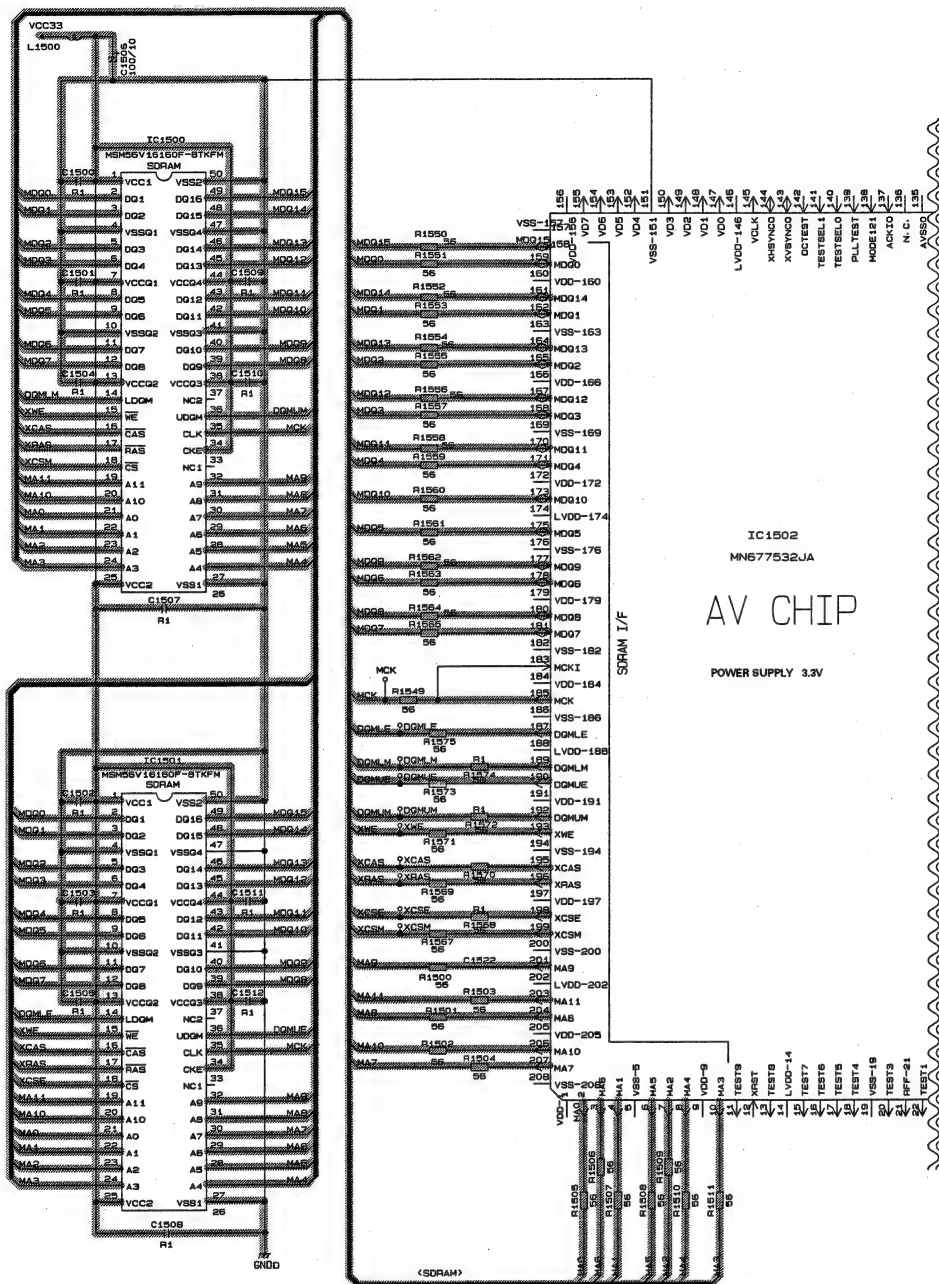
Verify the circuit described in Figure ⑥.

This check is the same for all DVD-V compatible modules.

Check the conductivity of both the "Verification location 1" and the "Verification location2."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where a problem occurs, for the overall sequence of "output " input" of the checked location.

NO.	Signal name	Verification location 1	Verification location 2	Rated value	Others
1	MA0	IC1500/1501 21pin	IC1502 2pin	56Ω ± 5%	Same for both IC1500 and IC1501.
2	MA1	IC1500/1501 22pin	IC1502 4pin	56Ω ± 5%	Same for both IC1500 and IC1501.
3	MA2	IC1500/1501 23pin	IC1502 7pin	56Ω ± 5%	Same for both IC1500 and IC1501.
4	MA3	IC1500/1501 24pin	IC1502 10pin	56Ω ± 5%	Same for both IC1500 and IC1501.
5	MA4	IC1500/1501 27pin	IC1502 8pin	56Ω ± 5%	Same for both IC1500 and IC1501.
6	MA5	IC1500/1501 28pin	IC1502 6pin	56Ω ± 5%	Same for both IC1500 and IC1501.
7	MA6	IC1500/1501 29pin	IC1502 3pin	56Ω ± 5%	Same for both IC1500 and IC1501.
8	MA7	IC1500/1501 30pin	IC1502 207pin	56Ω ± 5%	Same for both IC1500 and IC1501.
9	MA8	IC1500/1501 31pin	IC1502 204pin	56Ω ± 5%	Same for both IC1500 and IC1501.
10	MA9	IC1500/1501 32pin	IC1502 201pin	56Ω ± 5%	Same for both IC1500 and IC1501.
11	MA10	IC1500/1501 20pin	IC1502 206pin	56Ω ± 5%	Same for both IC1500 and IC1501.
12	MA11	IC1500/1501 19pin	IC1502 203pin	56Ω ± 5%	Same for both IC1500 and IC1501.
13	MDQ0	IC1500/1501 2pin	IC1502 159pin	56Ω ± 5%	Same for both IC1500 and IC1501.
14	MDQ1	IC1500/1501 3pin	IC1502 162pin	56Ω ± 5%	Same for both IC1500 and IC1501.
15	MDQ2	IC1500/1501 5pin	IC1502 165pin	56Ω ± 5%	Same for both IC1500 and IC1501.
16	MDQ3	IC1500/1501 6pin	IC1502 168pin	56Ω ± 5%	Same for both IC1500 and IC1501.
17	MDQ4	IC1500/1501 8pin	IC1502 171pin	56Ω ± 5%	Same for both IC1500 and IC1501.
18	MDQ5	IC1500/1501 9pin	IC1502 175pin	56Ω ± 5%	Same for both IC1500 and IC1501.
19	MDQ6	IC1500/1501 11pin	IC1502 178pin	56Ω ± 5%	Same for both IC1500 and IC1501.
20	MDQ7	IC1500/1501 12pin	IC1502 181pin	56Ω ± 5%	Same for both IC1500 and IC1501.
21	MDQ8	IC1500/1501 39pin	IC1502 180pin	56Ω ± 5%	Same for both IC1500 and IC1501.
22	MDQ9	IC1500/1501 40pin	IC1502 177pin	56Ω ± 5%	Same for both IC1500 and IC1501.
23	MDQ10	IC1500/1501 42pin	IC1502 173pin	56Ω ± 5%	Same for both IC1500 and IC1501.
24	MDQ11	IC1500/1501 43pin	IC1502 170pin	56Ω ± 5%	Same for both IC1500 and IC1501.
25	MDQ12	IC1500/1501 45pin	IC1502 167pin	56Ω ± 5%	Same for both IC1500 and IC1501.
26	MDQ13	IC1500/1501 46pin	IC1502 164pin	56Ω ± 5%	Same for both IC1500 and IC1501.
27	MDQ14	IC1500/1501 48pin	IC1502 161pin	56Ω ± 5%	Same for both IC1500 and IC1501.
28	MDQ15	IC1500/1501 49pin	IC1502 158pin	56Ω ± 5%	Same for both IC1500 and IC1501.
29	MCK	IC1500/1501 35pin	IC1502 185pin	56Ω ± 5%	Same for both IC1500 and IC1501.
30	XWE	IC1500/1501 15pin	IC1502 193pin	56Ω ± 5%	Same for both IC1500 and IC1501.
31	XCAS	IC1500/1501 16pin	IC1502 195pin	56Ω ± 5%	Same for both IC1500 and IC1501.
32	XRAS	IC1500/1501 17pin	IC1502 196pin	56Ω ± 5%	Same for both IC1500 and IC1501.
33	XCSM	IC1500 18pin	IC1502 199pin	56Ω ± 5%	Same for both IC1500 and IC1501.
34	XCSE	IC1501 18pin	IC1502 198pin	56Ω ± 5%	
35	DQMUM	IC1500 14pin	IC1502 192pin	56Ω ± 5%	
36	DQMLM	IC1500 36pin	IC1502 189pin	56Ω ± 5%	
37	DQMUE	IC1500 14pin	IC1502 190pin	56Ω ± 5%	
38	DQMLE	IC1500 36pin	IC1502 187pin	56Ω ± 5%	



### Check 7: Is the microprocessor operating normally?

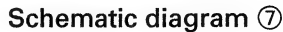
Verify the circuit described in Figure ⑦.

This check is the same for all DVD-V compatible modules.

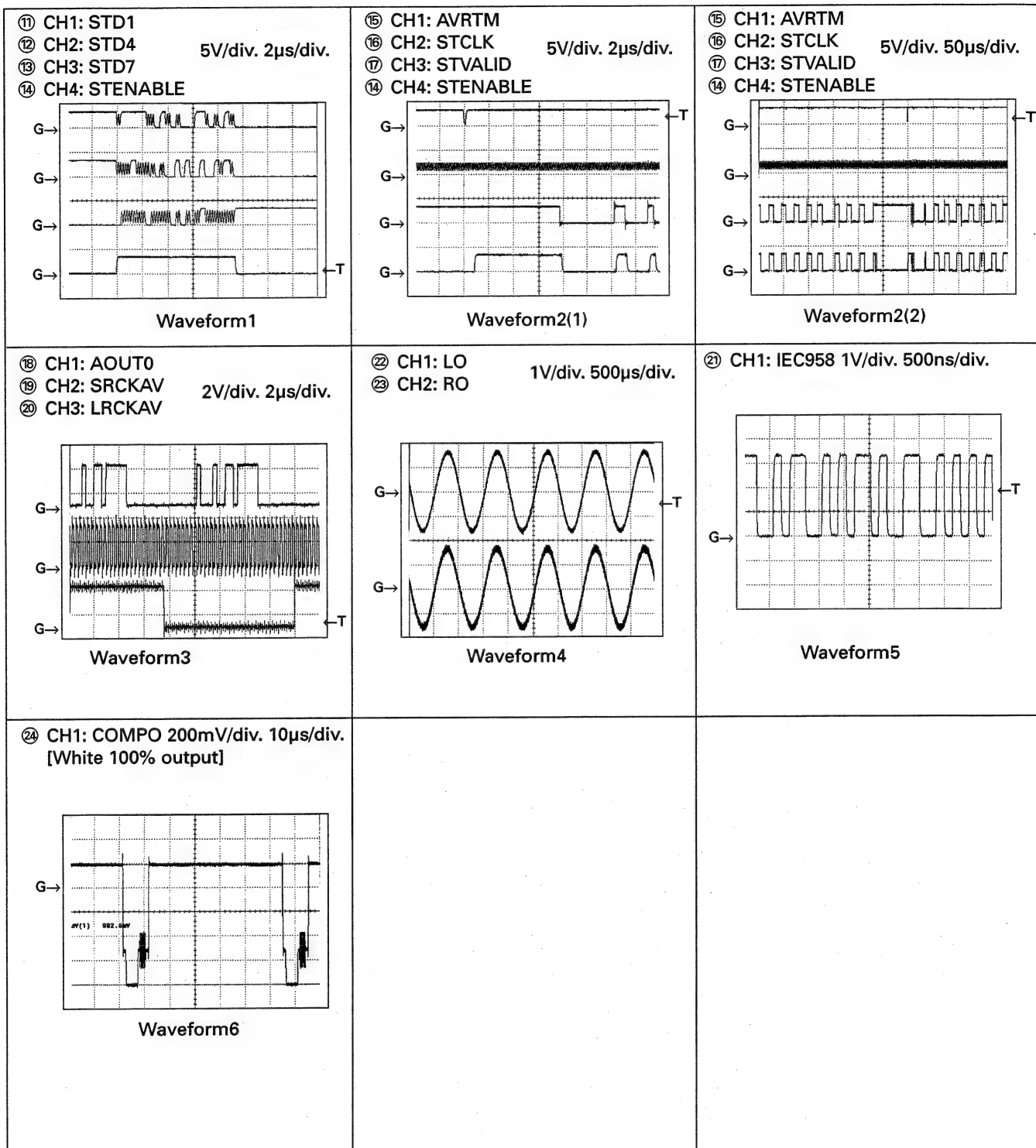
Check the conductivity of both the "Verification location 1" and the "Verification location2."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where a problem occurs, for the overall sequence of "output – input" of the checked location.

NO.	Signal name	Verification location 1	Verification location 2	Verification Media	Rated value	Others
1	A1	IC1700 142pin	IC1502 35pin	ALL	390Ω ± 5%	
2	A2	IC1700 141pin	IC1502 36pin	ALL	390Ω ± 5%	
3	A3	IC1700 140pin	IC1502 37pin	ALL	390Ω ± 5%	
4	A4	IC1700 139pin	IC1502 38pin	ALL	390Ω ± 5%	
5	A5	IC1700 138pin	IC1502 40pin	ALL	390Ω ± 5%	
6	A6	IC1700 137pin	IC1502 41pin	ALL	390Ω ± 5%	
7	A7	IC1700 136pin	IC1502 42pin	ALL	390Ω ± 5%	
8	A8	IC1700 133pin	IC1502 43pin	ALL	390Ω ± 5%	
9	A9	IC1700 132pin	IC1502 45pin	ALL	390Ω ± 5%	
10	A10	IC1700 131pin	IC1502 46pin	ALL	390Ω ± 5%	
11	A11	IC1700 130pin	IC1502 47pin	ALL	390Ω ± 5%	
12	D0	IC1700 17pin	IC1502 49pin	ALL	390Ω ± 5%	
13	D1	IC1700 16pin	IC1502 50pin	ALL	390Ω ± 5%	
14	D2	IC1700 15pin	IC1502 51pin	ALL	390Ω ± 5%	
15	D3	IC1700 14pin	IC1502 54pin	ALL	390Ω ± 5%	
16	D4	IC1700 13pin	IC1502 55pin	ALL	390Ω ± 5%	
17	D5	IC1700 12pin	IC1502 56pin	ALL	390Ω ± 5%	
18	D6	IC1700 11pin	IC1502 57pin	ALL	390Ω ± 5%	
19	D7	IC1700 10pin	IC1502 59pin	ALL	390Ω ± 5%	
20	D8	IC1700 7pin	IC1502 60pin	ALL	390Ω ± 5%	
21	D9	IC1700 6pin	IC1502 61pin	ALL	390Ω ± 5%	
22	D10	IC1700 5pin	IC1502 62pin	ALL	390Ω ± 5%	
23	D11	IC1700 4pin	IC1502 64pin	ALL	390Ω ± 5%	
24	D12	IC1700 3pin	IC1502 65pin	ALL	390Ω ± 5%	
25	D13	IC1700 2pin	IC1502 66pin	ALL	390Ω ± 5%	
26	D14	IC1700 1pin	IC1502 67pin	ALL	390Ω ± 5%	
27	D15	IC1700 144pin	IC1502 69pin	ALL	390Ω ± 5%	
28	XCSAVR	IC1700 101pin	IC1704 5pin	ALL	0Ω	
29	XCSAVW	IC1700 100pin	IC1704 4pin	ALL	0Ω	
30	XCSAV	IC1704 6pin	IC1502 32pin	ALL	390Ω ± 5%	
31	XAVINT	IC1700 39pin	IC1502 27pin	ALL	0Ω	
32	XRD	IC1700 95pin	IC1502 31pin	ALL	390Ω ± 5%	
33	CLKOUT	IC1700 90pin	IC1509 3pin	ALL	33Ω	Dividing circuit For verification location 1, include also IC1054 pin-11
34	HCLK	IC1509 5pin	IC1502 33pin	ALL	200Ω ± 5%	
35	XWR	IC1700 97pin	IC1504 13pin	ALL	0Ω	
36	XBWR	IC1503 8pin	IC1502 30pin	ALL	200Ω ± 5%	



Note:1. The encircled number denote measuring pointes in the circuit diagram.  
2. Reference voltage VHALF : 1.65V



## 6.3 TEST MODE

### ● Navigation Test Modes

#### 1. Types of Test Modes

There are two types of test modes:

1. Production Engineering Specification (this type is not available for service uses).
2. Service Specification, ROM / SDRAM version

This type is available when the system start-up is conducted from system software in ROM.

#### 2. Test Mode System Start-Up Method

Service Specification Version (ROM / SDRAM version):

1. Press both the RESET and EJECT buttons simultaneously, when +Battery and ACC are both in an ON condition.
2. Release the RESET button only.
3. When the password entry screen is displayed, release the EJECT button.
4. Enter the password.
5. Once the password has been entered, press the OK button.
6. If the system matches the entered password the test mode menu will be displayed.

\* Ordinarily, the ROM version will start up. However, if the system software is being stored on an SDRAM, and if the ACC is turned ON while the EJECT button only is being pressed, the software on the SDRAM will start up.

#### [Password]

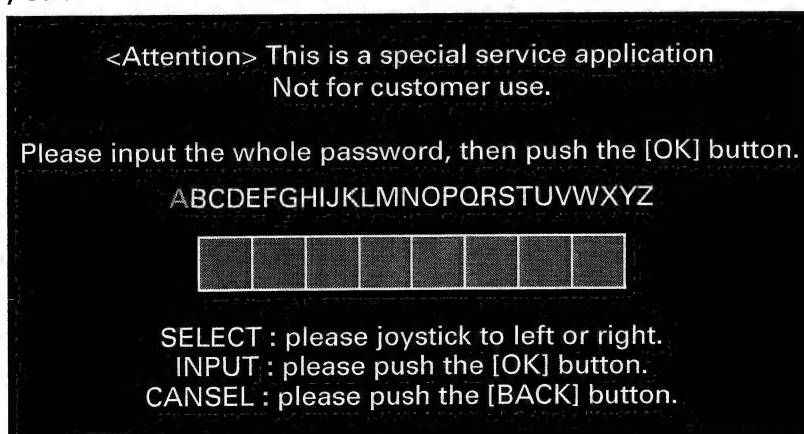
The password is "2580456".

Enter the password using the ten-key pad, then press the OK button.

All the alphabetical characters displayed are dummy displays.

Seven digits are necessary for the password. Entering eight digits will result in a password error.

#### • Password Entry Screen





- Password OK screen:

This screen is displayed for approximately two seconds, then automatically changes to the menu screen.

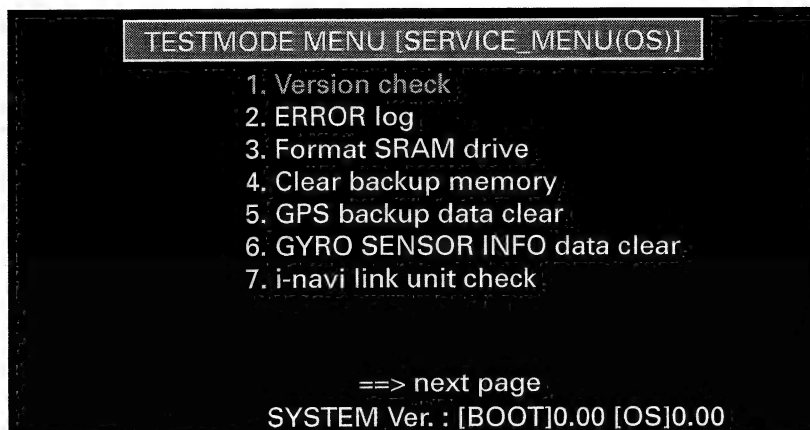


- Password NG screen

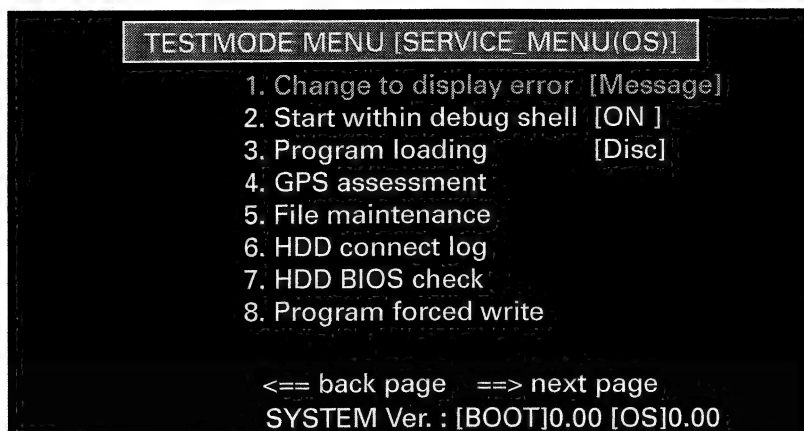


## 3. Service Mode Menu

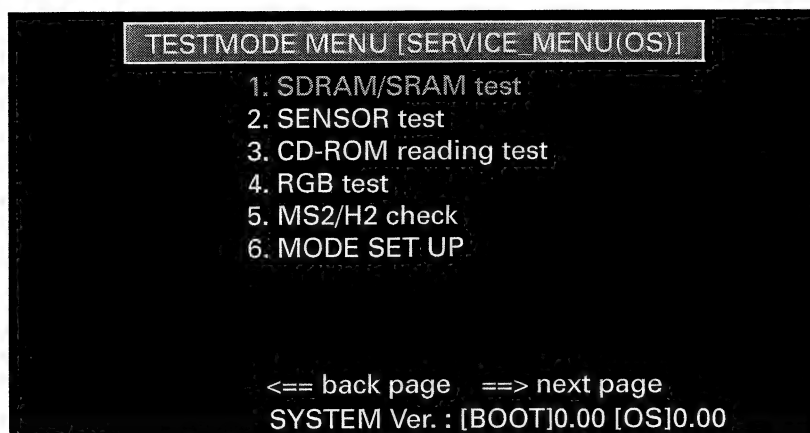
Service Specification Version (ROM / SDRAM version)



1. Version check	Version check Various version information.
2. ERROR log	Error log entry test (Refer to page 155. ) Displays an error log of the system software stored in the SRAM. A maximum of eight error logs can be displayed, starting with the latest error.
3. Format SRAM drive	SRAM formatting The SRAM area used by the application will be initialized. When the initialization process has been completed, the display will return to the menu screen.
4. Clear backup memory	Backup variable initialization The SRAM area used by the system software will be initialized. When the process has been completed, the system will reboot.
5. GPS backup data clear	GPS backup data clearing The SRAM area, used by the GPS program, will be initialized. When the process has been completed, the display will return to the menu screen.
6. GYRO SENSOR INFO data clear	Gyro sensor's learning function data clearing The learning values stored in the gyro sensor will be cleared. When the process has been completed, the display will return to the menu screen.
7. i-navi link unit check	Not used.



1. Change to display error	Error information switch (Refer to page 156. ) A display setting (for debugging) where an error occurs. A Message (message itself) or Information (error information) selection can be made.
2. Start within debug shell	Debug shell Start-up setting for the debug shell (for debugging). An Off (no initial start-up) or On (initial start-up) selection can be made.
3. Program loading	Program loading Setting the storage location priority for the system software and application at start-up (for debugging). A Disc (disc prioritized as boot source) or Disc & Card (disc or card prioritized as boot source) selection can be made.
4. GPS assessment	GPS evaluation system start up Tests on the availability and usability of the GPS evaluation system are conducted. Pressing the BACK key will return the display to the menu screen.
5. File Maintenance	File management function test Conducts formatting of the SRAM drive and PC card (ATA Flash Card). Data stored in the SRAM can be extracted and copied to the PC Card. Data extracted from the SRAM to the PC Card can be copied to the SRAM again.
6. HDD connect log	Not used.
7. HDD BIOS check	Not used.
8. Program forced write	Forced overwriting of the program Forced overwriting of SYS (system), GPS (GPS), APL (application) software, (and DSP software for Japanese domestic versions) are performed. For the system and application, the selection of a language is required (using the joystick). Pressing the BACK key will return the display to the menu screen.



1. SDRAM/SRAM test	<p>Memory check</p> <p>SRAM: Device and bus tests are conducted to all areas of the SRAM. Data is protected during the test.</p> <p>SDRAM: Device and bus tests are conducted to all areas of the SDRAM, by dividing the areas into BIOS / USER areas. During the device tests, data in the BIOS area is not protected, while the data in the USER area is protected. During the bus test, data patterns are written in the USER area, therefore, the data in the USER area is not protected.</p>
2. SENSOR test	<p>Sensor tests</p> <p>Tests on the G-sensor, gyro, power supply voltage and mechanical installation conditions, are conducted.</p> <p>Pressing the BACK key will return the display to the menu screen.</p>
3. CD-ROM reading test	<p>CD-ROM reading test</p> <p>A reading test of the CD-ROM drive will be conducted.</p>
4. RGB test	<p>Display images RGB rendering checks</p> <p>RGB rendering tests</p> <p>(The upper half consists of eight colors of black, blue, red, pink, green, light blue, yellow and white, as well as the lower half three colors of red, green and blue.)</p> <p>-&gt; Red (full) -&gt; Green (full) -&gt; Blue (full) -&gt;</p> <p>The color toggle can be implemented by using the &lt;- and -&gt; keys.</p> <p>Pressing the BACK key will return the display to the menu screen.</p>
5. MS2/H2 check	<p>Mechanism Module test</p> <p>Starting the DVD Mechanism Module test mode.(Refer to page 159.)</p>
6. MODE SET UP	Not used.

#### 4. Test Mode's Menu Selection Method

A selection can be made while moving the joystick up or down the menu. When the desired item has been emphasized, press the OK button to execute the selected test.

This selection cannot be performed using the ten-key pad.

A transition between pages of the menu can be performed by moving the joystick to the left and right.

#### 5. Version Information

The system software's version information is provided on the bottom line of the test mode menu.

SYSTEM Ver. : [BOOT] X.XX	<p>ROM version = X.XX.</p> <p>No system software exists in an SDRAM.</p>
SYSTEM Ver. : [BOOT] X.XX [OS] Y.YY	<p>ROM version = X.XX.</p> <p>SDRAM version = Y.YY.</p>

## ● Error Information

### 1. Error Information

Descriptions of error information, for errors arising from system software problems, will be provided in this section.

Up to eight sets of information, related to the system software's errors, will be stored in the SRAM.

By executing hi\_sysdwn( ) the line number (on which the error occurred), the error code and detailed information of the error, will be stored in the error log.

Hi\_sysdwn( ) will be executed in the following two circumstances:

1. hi\_sysdwn( ) will be intentionally stored if fatal errors occur with each BIOS.
2. If multiple exceptions, fatal exceptions, illegal command codes and trap command errors occur.

### 2. Error Log's Entry Function

Up to eight sets of information, related to errors starting with the latest error, will be displayed by the error log entry function.

There are two types of error log displays.

The display will vary when the argument provided to hi\_sysdwn( ), depending on whether detailed information (such as program name, version number, creation date, creation time and creator name) exists or not.

#### 1. When detailed information exists:

```

** ERROR INFORMATION **

ERCD = ffffffff(-1)
FILE  = tsk_ini.c
LINE  = 144(00000090)
VERS  = 1.16
DATE  = 1999-03-19
TIME  = 12:28:58+09
AUTH  = hiroaki

ERROR-TIME 1999-03-24 16:50:19

No.2 ← ERROR No.1 → No.8
Stop when push [BACK] button.
    
```

ERCD	Error code.
FILE	Error occurring program name.
LINE	Error occurring program line number.
VERS	Error occurring program version number.
DATE	Error occurring program creation date.
TIME	Error occurring program creation time.
AUTH	Error occurring program creator name.
ERROR-TIME	Error occurrence date and time.

## 2. When detailed information does not exist:

```

** ERROR INFORMATION **

type = 00400016(4194326)
ercd = 0000ff90(65424)
inf  = 00000002(2)

ERROR-TIME 1999-03-24 17:17:01
          No.2 ← ERROR No.1 → No.8
          Stop when push [BACK] button.
    
```

type	Error occurring program line number.
ercd	Error code.
inf	System down information.
ERROR-TIME	Error occurrence date and time.

If an error occurs due to a multiple exception, the definitions will change to the following:

type	Execution address at the time of error occurrence.
ercd	Contributing factor for the exceptions.
inf	Program status word at the time of error occurrence.
ERROR-TIME	Error occurrence date and time.

## 3. Error Information Switch

The product (with default settings) will display error messages to the user if an error occurs.

Error information can be displayed if an error occurs by switching the error information in the test mode.

In either case, the error log entry display will be the same.

### 1) Error message display (default settings):

#### • Setting in the test mode:

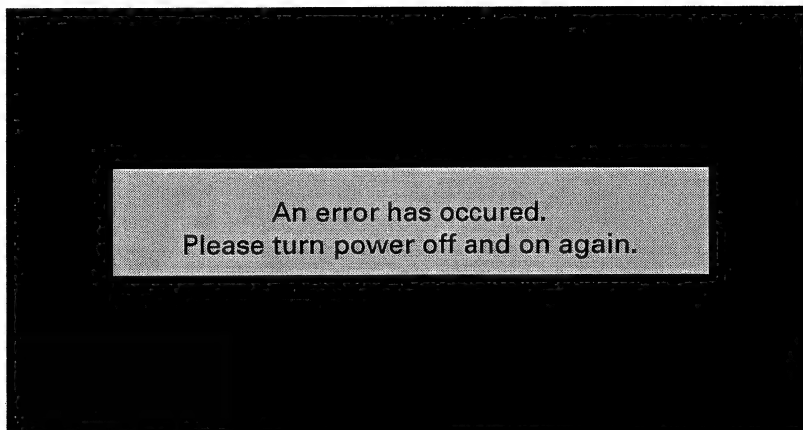
```

TESTMODE MENU [SERVICE MENU(OS)]

1. Change to display error [Message]
2. Start within debug shell [ON ]
3. Program loading         [Disc]
4. GPS assessment
5. File maintenance
6. HDD connect log
7. HDD BIOS check
8. Program forced write

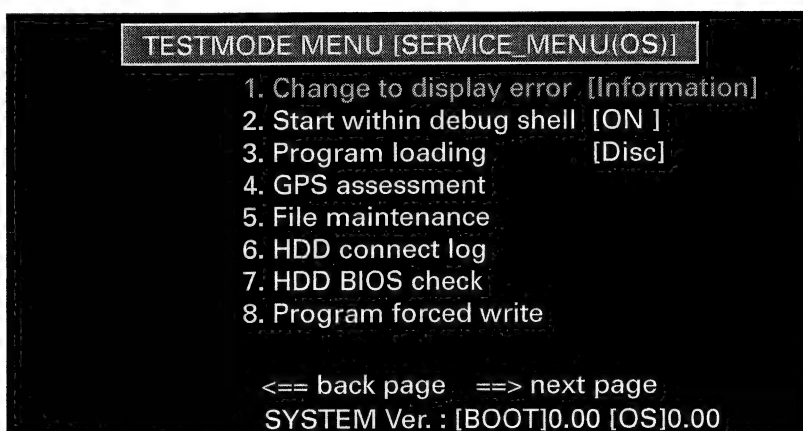
<== back page ==> next page
SYSTEM Ver. : [BOOT]0.00 [OS]0.00
    
```

- Display when an error occurs:



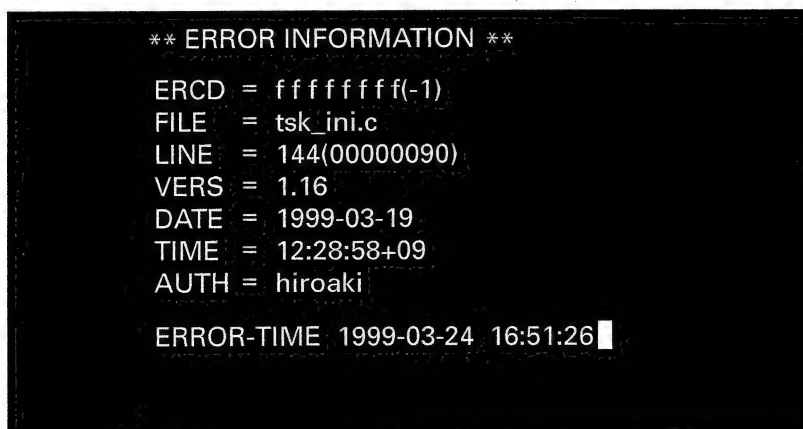
## 2) Error information display

- Settings in the test mode:



Display when an error occurs:

- If error information exists:



- If error information does not exist:

\*\* ERROR INFORMATION \*\*

type = 0010a316(1090326)

ercd = 0000ff90(65424)

inf = 00000000(0)

ERROR-TIME 1999-03-24 18:34:30



## ● DVD Test Modes

### CAUTIONS

Protection is not operational against a mechanical runaway conditions during servo testing.  
Critical damage can result if the system is allowed to continue in a mechanical runaway state.  
If abnormal noise is heard during the test, turn the power OFF immediately.

### ● Entering the test mode

The test mode can be selected from the navigation test mode.

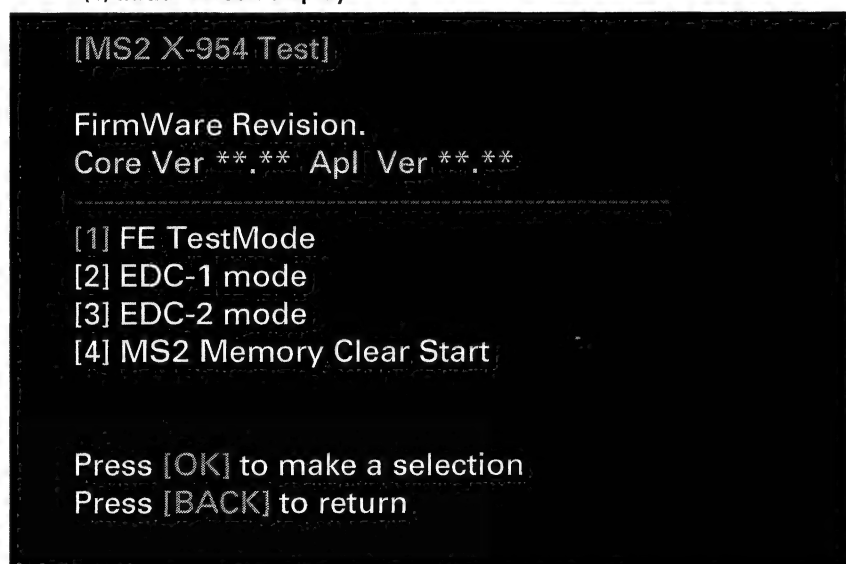
### ● Keys (remote control) used for the DVD test mode

[OK] : Selection decided.

[BACK] : Go back.

Directional keys : [ ← ↓ → ↑ ] keys of the joystick.

#### (1) Initial screen display



FirmWare Revision: Version of the drive used.

[1] Starts the FE test mode.

[2] EDC1 mode (available for DVDs only).

[3] EDC2 mode (available for DVDs only).

[4] Executes the MS2 memory clearing operation.

[OK] Executes.

[BACK] Returns to the test mode menu.

\* Using the joystick select individual items .

## AVIC-90DVD,9DVDII

### (2) FE Test Menu Screen Display

[X-954 FE Test menu]

Status : Power Off Data : 0000 0000

[1] Power On

[2] Disc type : DVD 1-Layer

[3] Disc type : DVD 2-Layer

[4] Disc type : CD

[5] Disc type : CD-RW

[6] Disc Eject

Press [OK] to make a selection

Press [BACK] to X-954 Test top

Status : "Power Off (during normal conditions)."

[1] Power On (proceed to servo test 1-0).

[2] Disk type : DVD single-layer.

[3] Disk type : DVD double-layer.

[4] Disk type : CD.

[5] Disk type : CD-RW.

[6] Ejects the disk.

[OK] Executes.

[BACK] Returns to the initial screen display for the test.

\* Using the joystick select individual items .

### (3) DVD EDC Test Menu Screen Display

[X-954 DVD Test] EDC-1

+-----+

Layer : 0

ID : 20 03 0A 63

+-----+

[1] Select Layer 0

[2] Select Layer 1

[3] Disc Eject

Press [OK] to make a selection

Press [BACK] to DVD Test top (EDC end)

EDC-1 : Performs consecutive EDC tests.

EDC-2 : Performs EDC tests for each block.

ID : Performs ID of the test.

[1] Selects layer 0.

[2] Selects layer 1.

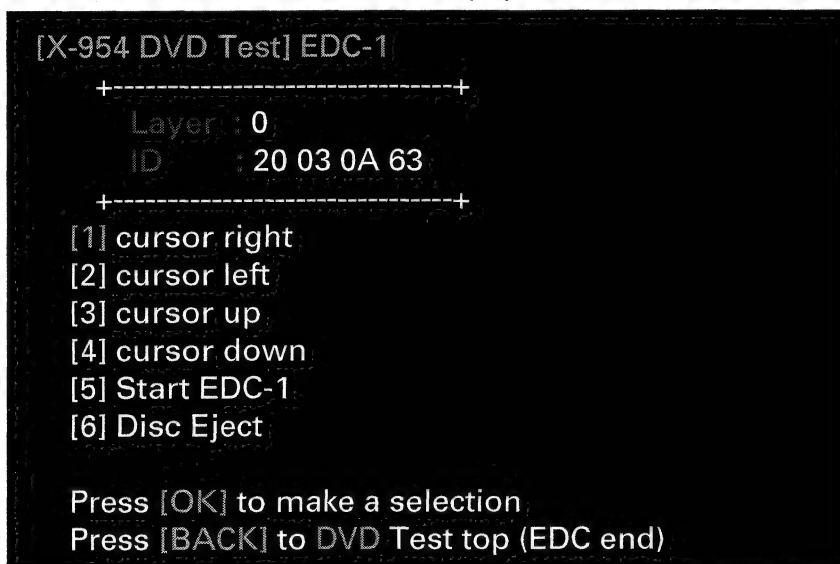
[3] Ejects the disk.

[OK] Executes.

[BACK] Returns to the test mode menu.

\* Using the joystick select individual items .

#### (4) DVD ECD Test Menu Screen Display



EDC-1 : Performs consecutive EDC tests.

EDC-2 : Performs EDC tests for each block.

ID : Performs ID of the test.

[1] Moves the cursor to the right by one increment.

[2] Moves the cursor to the left by one increment.

[3] Moves the cursor up by one increment.

[4] Moves the cursor down by one increment.

[5] Starts the EDC test.

[6] Ejects the disk.

[OK] Executes.

[BACK] Returns to the test mode menu.

## AVIC-90DVD,9DVDII

### (5) Servo Test Screen Display 1-0

```
[X-954 DVD Servo. Test(1-0) ]
Status : Power On      Data : 0000 0000
-----
[1] Focus Close
[2] Focus Search (Start/Stop)
[3] CRG + (Start/Stop) [4] CRG - (Start/Stop)
[5] LD-ON/OFF
[6] CRG HOME
-----
FE Offset : 0000 0000 TE Offset : 0000 0000
AS Offset : 0000 0000 ENV Offset : 0000 0000
TG Offset : 0000 0000 DBAL : 0000 0000
-----
Press [OK] to make a selection
Press [BACK] to DVD Test top (Power Off)
```

Test items are basically the same for both DVDs and CDs.

\* Using the joystick select individual items.

Status : "Power On" (during normal conditions).

\* Focus closing and searching will not operate unless the LD-ON setting is made.

- [1] Closes in on the focus (proceeds to servo test 2-0).
- [2] Performs a focus search operation (S-curve measurement). Focus operation will then be stopped.
- [3] Moves the carriage (external). The carriage transition operation will then be stopped.
- [4] Moves the carriage (internal). The carriage transition operation will then be stopped.
- [5] Performs LD-ON/OFF operation.
- [6] Returns the carriage to the home position.
- [BACK] Returns to the DVD test menu screen display.

\* This operation will not be performed until the coefficient figures have been received.

### (6) Servo Test Screen Display 2-0

```
[X-954 DVD Servo. Test(2-0) ]
Status : Focus Close   Data : 0000 0000
-----
[1] T.Bal
[2] Focus Jump
[3] CRG + (Start/Stop) [4] CRG - (Start/Stop)
-----
FE MAX : 0000 0000 FE MIN : 0000 0000
AS MAX : 0000 0000 ENV MAX : 0000 0000
FE Normal : 0000 0000 S.Gain : 0000 0000
-----
Press [OK] to make a selection
Press [BACK] to DVD Test top (Power Off)
```

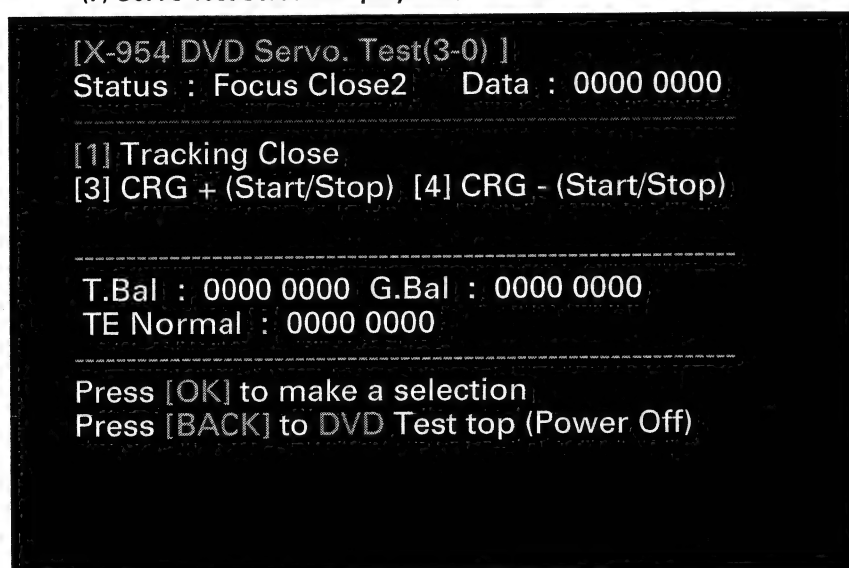
Test items are basically the same for both DVDs and CDs.

\* Using the joystick select individual items.

Status : "Focus Close" (during normal conditions).

- [1] Adjusts tracking balance (proceeds to servo test 3-0).
  - [2] Performs a focus jump operation.
  - [3] Moves the carriage (external). The carriage transition operation will then be stopped.
  - [4] Moves the carriage (internal). The carriage transition operation will then be stopped.
  - [BACK] Returns to the DVD test menu screen display.
- \* This operation will not be performed until the coefficient figures have been received.

(7) Servo Test Screen Display 3-0



Test items are basically the same for both DVDs and CDs.

\* Using the joystick select individual items.

Status : "Focus Close2" (during normal conditions).

- [1] Performs tracking close operation (proceeds to servo test 4-0).
  - [3] Moves the carriage (external). The carriage transition operation will then be stopped.
  - [4] Moves the carriage (internal). The carriage transition operation will then be stopped.
  - [BACK] Returns to the DVD test menu screen display.
- \* This operation will not be performed until the coefficient figures have been received.

## AVIC-90DVD,9DVDII

### (8) Servo Test Screen Display 4-0

```
[X-954 DVD Servo. Test(4-0) ]
Status : Tracking Close  Data : 0000 0000
-----
[1] Error Rate . . . 1.105e04
[2] Read Speed
[3] Track Jump + [4] Track Jump -
[5] Focus Jump
[6] ID Search
[7] Tracking Open (to Focus Close)
-----
F.Bal : 0000 0000 F.Gain : 0000 0000
T.Gain : 0000 0000 AS Normal : 0000 0000
-----
Press [OK] to make a selection
Press [BACK] to DVD Test top (Power Off)
```

Test items are basically the same for both DVDs and CDs.

\* Using the joystick select individual items.

Status : "Tracking Close" (during normal conditions).

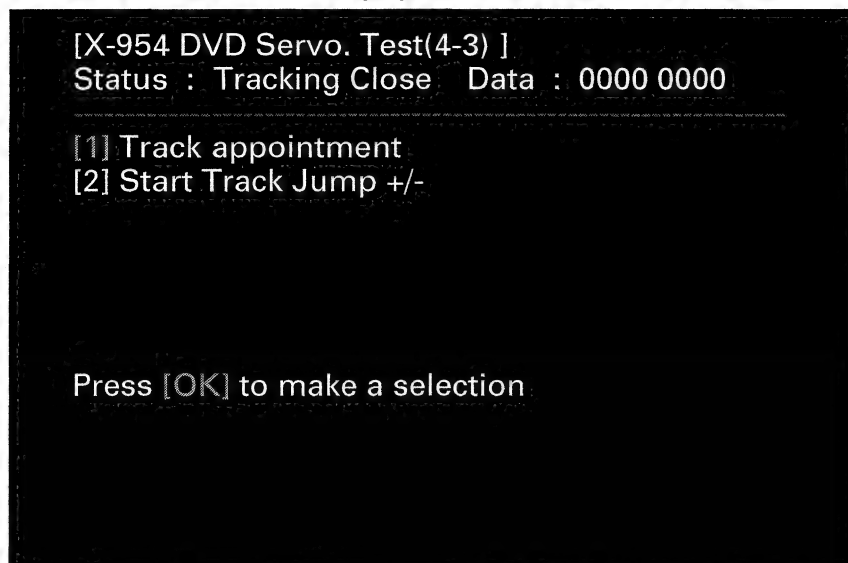
- [1] [OK] triggers measurement of the error rates (other operations can not be performed for approximately 10 seconds).
  - [2] [OK] triggers switching of the reproduction speed.
  - [3] Performs track jumping by a designated number of tracks (external).
  - [4] Performs track jumping by a designated number of tracks (internal).
  - [5] Performs a focus jump operation (for DVDs only).
  - [6] Designates an ID (for DVDs only).
  - [7] Performs a tracking open operation (for the focus close status: will proceed to servo test 2-0).
- [BACK] Returns to the DVD test menu screen display.

\* This operation will not be performed until the coefficient figures have been received.

#### Reproduction speeds

L0-layer	DVD x CAV, CD x 2CLV	4000 0000
L0-layer	DVD x 1CLV, CD x 1CLV	4200 0000
L1-layer	DVD x CAV	4100 0000
L1-layer	DVD x 1CLV	4300 0000

(9) Servo Test Screen Display 4-3/4

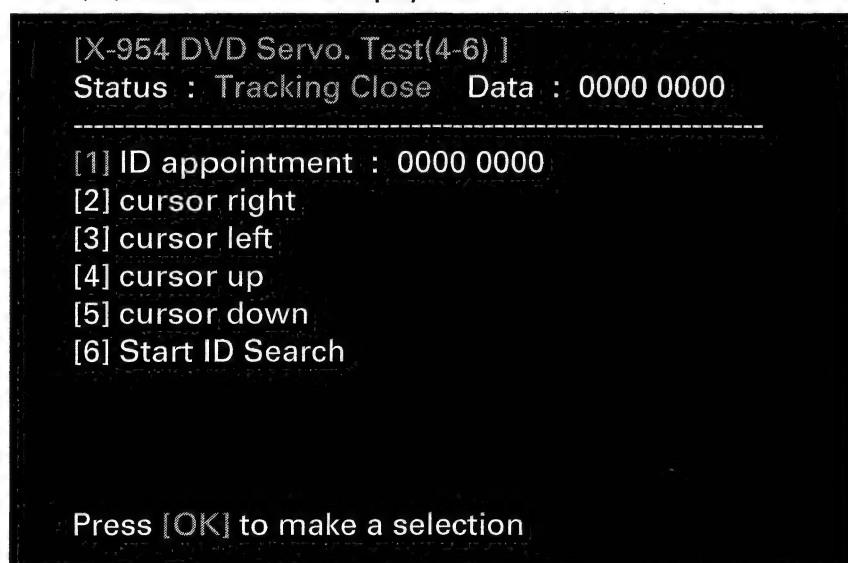


Test items are basically the same for both DVDs and CDs.

Status : "Tracking Close" (during normal conditions).

- [1] Performs a track number designation (MS2 cyclically switches the ten available patterns).
- [2] Starts the tracking jump operation (will proceed to servo test 4-0).

(10) Servo Test Screen Display 4-6



Available for DVDs only.

Status : "Tracking Close" (during normal conditions).

- [1] Displays designated ID .
- [2] Moves the cursor to the right by one increment.
- [3] Moves the cursor to the left by one increment.
- [4] Moves the cursor up by one increment.
- [5] Moves the cursor down by one increment.
- [6] Starts the ID search operation (return to servo test 4-0).

## 6.4 USING THE TEST DISC

● TEST DISC Part No. : GGV1059 (CNDK-LT0102)

### 1. Start up

Insert the test disc into the system, and press the [BACK] key while the title, "AVIC-9DVD/EW, AVIC-9DVD/UC and AVIC-8DVD/EW TEST DISC" is displayed. This will bring up the menu screen.

If keys are not pressed while the title is displayed, the initial screen of the line testing will be displayed.

### 2. Key Operations

#### • Line testing screen display

1. To switch between the testing screen and menu screen displays press the [CR] key.
2. To test a selected item press the [BACK] key.
3. To revert to the previous screen press the [↑] key.
4. To move to the next test screen press the [↓] key (the display will not change to the next screen, unless the test has been completed successfully).

\* For details please refer to descriptions for each screen.

#### • Menu screen for service

1. Select an item by using the [↑] and [↓] keys, then press the [CR] key to display the test screen.
2. To return to the menu screen press the [BACK] key.

\* For details please refer to descriptions on each screen.

### 3. Test Screen Display

#### 1. External Connections

Connection check		
Illumination signal		OFF
Parking brake signal		ON
Reverse gear signal		REV
Car speed signal		0
Gyro	LEFT <<	49845
Gyro voltage		2.434 V OK
Gyro delta sigma		10.6 OK
Battery voltage		12.3 V OK
G sensor	++	40635
G sensor voltage		1.985 V OK
Remote controller		MENU KEY
Helpnet switch/ sense		ON/ ON
[Push joy stick down to go to next check]		

- Status of items listed on the left will be updated every second.
- The VCUE (Pin-9) line will be turned ON during the test.
- The status of the Illumination, Parking Brake and Reverse Gear must change between ON and OFF.
- Pressing the [↓] key will not enable the test to proceed to the next test unless all conditions have been satisfied.



## 2. Call Origination Microphone Line (Voice Recognition)

Microphone & Gain control check

Gain level (0-7) 1

[-> to raise gain, <- to lower gain ]  
[Push joy stick down to go to next check]

- Voice recognition will be performed and the microphone and speaker line's connectivity tests will be conducted. Please input a voice signal in MICIN to verify the voice recognition's function, operation and input level. The gain of PROGGAIN0 through PROGGAIN2 can be increased or decreased by using the [→] and [←] of the joystick.
- Enable and disable muting of the ONSEIMUTE signal by using the Current Position key as a toggle switch.
- The next test can be performed by pressing the [↓] key.

## 3. Data Communications (Short Circuit Checks)

Data Communication (Short Circuit) check

Serial I/O #3 (for TV)	OK
Serial I/O #5 (for CUE Unit)	NG
+CUE Unit check	OK
Serial I/O #7 (for Debug)	OK
Serial I/O #9 (for Telephone)	OK

[Push joy stick down to go to next check]

- CUE connection will be checked for short circuits. If the CUE is not connected a loop-back check at CH5 will be performed. If the CUE connectivity or CH5 loop-back check results in an OK, the CH5 test will be successfully completed (OK).
- The SIO #1, #6 and ETC checks, will be skipped.
- If all tests result in an OK the next test can be performed by using the [↓] key.

## 4. Data Communications (Open Circuit Checks)

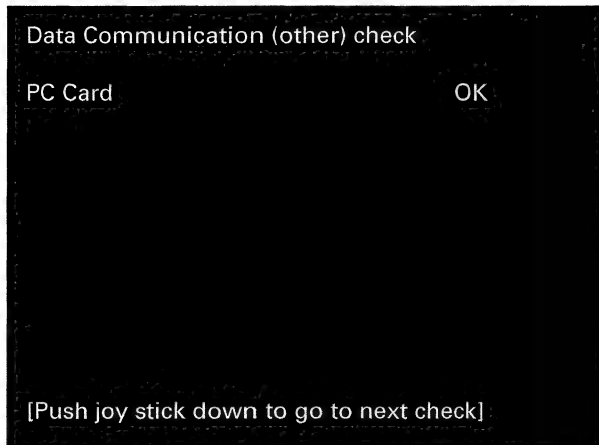
Data Communication (Open Circuit) check

Serial I/O #3 (for TV)	OK
Serial I/O #5 (for CUE Unit)	OK
Serial I/O #7 (for Debug)	OK
Serial I/O #9 (for Telephone)	OK

[Push joy stick down to go to next check]

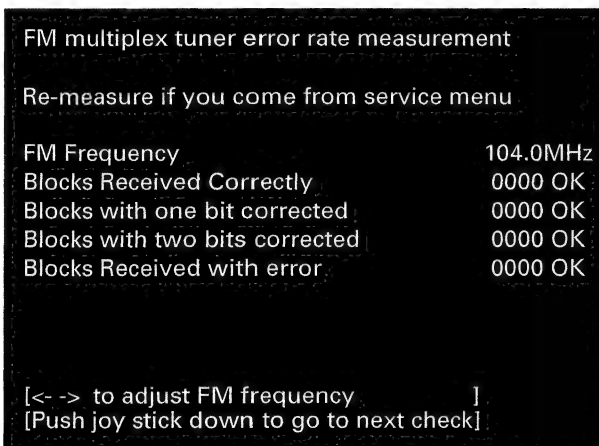
- The SIO connection is checked for open circuits. Please do not connect anything to the pins. If the circuit is determined to be open, the test will result in an OK for each SIO connection.
- The next test can be performed using the [↓] key, if all tests result in OK.

## 5. Data Communications (Others)



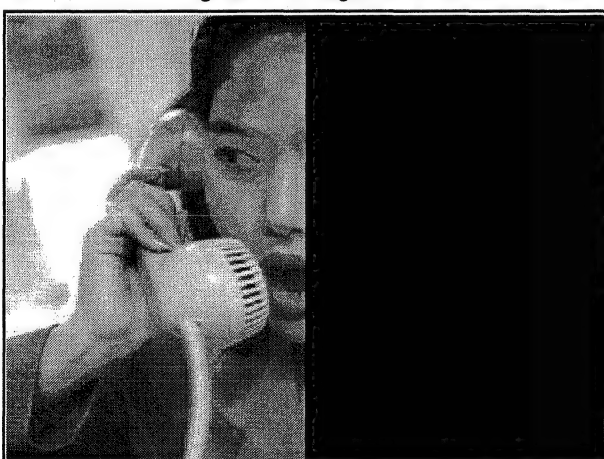
- PC card connection is checked.
- The next test can be performed by pressing the [↓] key, if all tests result in OK.

## 6. FM Multiplex Error Measurements



- FM multiplex error measurement is conducted.
- The default frequency is 104.0MHz.
- If the test is performed for the first time, measurements (taken at the time the test disk is started up) will be displayed.
- Please set the frequency to a frequency other than the frequency used in the previous test for all tests following the second test.
- The frequency can be changed by using the [←] and [→] keys after taking a measurement.
- 500 blocks will be tested, and if the error rate is 1% or less, the results will be displayed as "OK".
- The next test can be performed by pressing the [↓] key, if the test results in an OK.

## 7. Natural Image and Navigator P-side-P



- A 256-color natural image will be displayed as a background image, and the right half of the image will be changed to a chroma key color.
- The 1kHz sine wave, with a sampling rate of 22kHz, will be output for 30 seconds.
- If the test screen is displayed, turn the guidance audio ON, then turn it OFF when the screen is no longer displayed.
- The sound volume can be altered by pressing the [←] and [→] keys (from level 0 to 9).  
[JPEG file name: HITO1.JPG]  
[audio file name: A19K01KR.WAV]
- The next test can be performed using the [↓] key.

## 8. GPS Reception

GPS Self check

2001/01/25 10:10:05

Using satellites No. 01 02 03 04 05 06 07 08

Antenna connection OK

Receiving signal level 0.0

Latitude 2D 0 00'00.00

Longitude 0 00'00.00

[Push joy stick down to go to next check]

- The status of the GPS reception will be displayed.
- Verification is made to ensure that the antenna connection is OK and that the latitude and longitude measurements are 1 degrees or more, resulting in a three-dimensional binary measurement. If these conditions have been verified to satisfy the requirements, the process can proceed to the next step.
- The next test can be performed by pressing the [↓] key.

## 9. GPS Sensitivity Measurements

GPS sensitivity measurment

Satellite No. 3 [← -> to select satellite]

Ch.	Lock	SNR(AMU)	SNR(dB)
1	OK	0.0	0.0
2	OK	0.0	0.0
3	OK	0.0	0.0
4	OK	0.0	0.0
5	OK	0.0	0.0
6	OK	0.0	0.0
7	OK	0.0	0.0
8	OK	0.0	0.0
All	--	Sensitivity	10.0 (dB)
		DoppRMS	345.12(Hz)

[Push joy stick down to go to next check]

- The sensitivity of the GPS selected by the [CR] key will be displayed.
- The GPS selection can be changed by pressing the [←] and [→] keys.
- The next test can be performed by pressing the [↓] key.

## 10. Software Version Display

Software version

System boot version	1.00
System OS version	1.00
Syscom version	8.00
Drive core version	7.24
Drive apl version	2.44
Application version	1.00
Language data version	1.00
GPS program version	1.10

[Push joy stick down to go to next check]

- The software version will be displayed.
- The next test can be performed by pressing the [↓] key.

### 11. Language Selection Flag Initialization

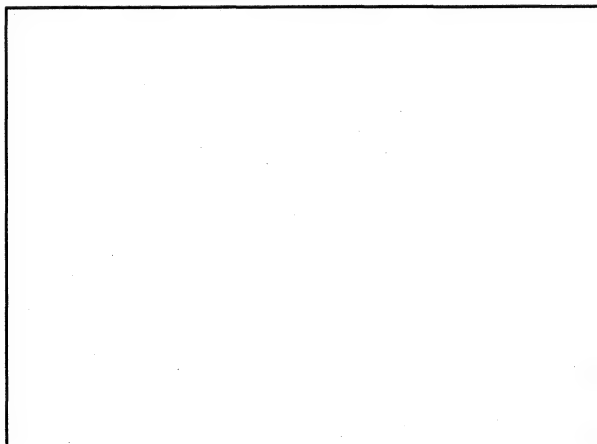
Language selection flag initialize  
Language selection flag is initialized.

[Push joy stick down to end check]

- Settings will be reset to the shipping conditions upon entering into this test stage (no settings).
- Settings will be performed at the time this test starts.
- The [↓] key will terminate the production engineering test.

### 4. Menus for Service

#### 1. Display Image RGB



- This is a test for the RGB image display.
- The display can be switched by pressing the [←] and [→] keys.
- \* An RGB image display is performed in the order of R100% -> R50% -> G100% -> G50% -> B100% -> B50%.
- A total of six screen images will be displayed.

#### 2. TV Tuner

Self-test mode [TV Tuner]

Change to the TV screen display by  
pressing the V.CHANGE button.

- The display can be switched to the TV screen display by pressing the V.CHANGE button.
- Channels can be switched between 1, 8, 12, 13, 39 and 62 by using the up and down motion of the joystick.
- Turning and holding the joystick to the right or left causes the seek action to go up or down.
- Turning the joystick quickly to the right or left will cause the manual channel to scroll up or down.

### 3. GPS Information

GPS information

0D	T2	H25.5	V25.5	01/03/28	23:05:47				
SV	Azi	Ev	SNR	Flag	ACC	Doppler	SrchW		
10	119	39	3.0	UY-	3	-2249	2883		
26	25	60	4.9	UYC-	2	-1051	3496		
18	310	25	0.0	--m	f	+0	12487		
23	305	33	0.0	--m	f	+0	21812		
17	317	49	0.0	--m	f	+0	21812		
9	196	56	0.0	--m	f	+0	21812		
14	260	73	0.0	--m	f	+0	5994		
4	142	81	0.0	--m	3	+0	5994		

Position **SV Stat** Ver & Diag Err Info

- If the cursor is over the "Position" and the [CR] key is pressed, the "Position Information" will be displayed.
  - If the cursor is over the "SV Stat" and the [CR] key is pressed, the "Status Information" will be displayed.
  - If the cursor is over the "Ver&Diag" and the [CR] key is pressed, the "Dialog Information" will be displayed.
  - If the cursor is over the "Err Info" and the [CR] key is pressed, the "Error Information" will be displayed.
- (The screen displayed shown here represent pressing the [CR] key when the cursor will be over the "SV Stat.")

### 4. Audio Reproduction

Sound play

ADPCM fixation 11K 1K L
ADPCM fixation 11K 1K mono
ADPCM fixation 11K 1K R
ADPCM fixation 11K 1K ste
ADPCM fixation 19K 1K L
ADPCM fixation 19K 1K mono
ADPCM fixation 19K 1K R

Main fader Vol. [0-15] 15

[> Vol. up, <- Vol. down ]  
[Push BACK key to go to menu]

- The audio selected by the [CR] key will be reproduced.
- The audio selection can be changed by using the [←] and [→] keys.

### 5. File Management

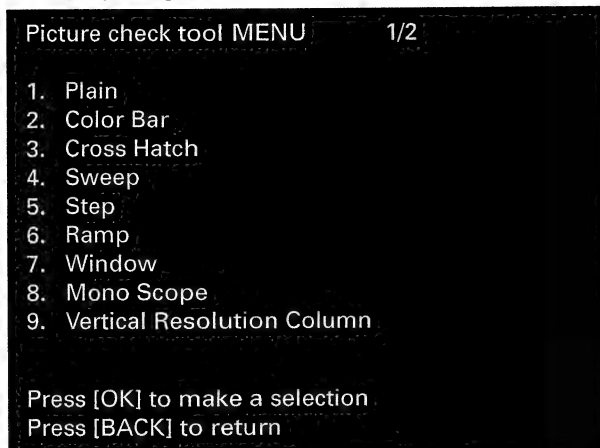
File maintenance tool

Total Capacity :	216.5K	Remain :	216.3K
Media:SRAM: Path:¥			
LOGINFO.CFG	20	84	80/01/01 00:00
LOCPOS .DAT	20	68	01/01/01 21:22

[1]Media [2]Copy [3>Delete [4]Dump [0]Help

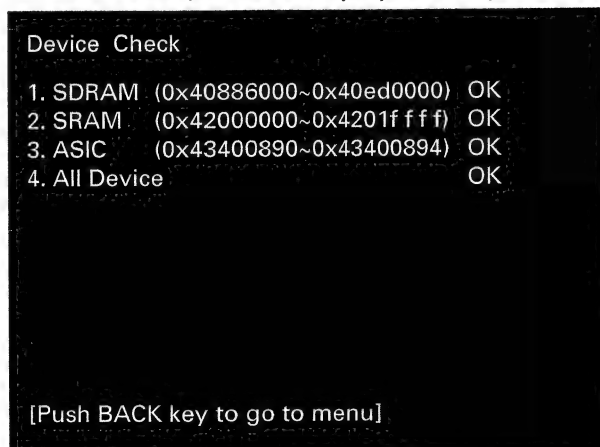
- The copying, deleting and dumping of files can be performed. Please refer to the HELP for details concerning the use of individual functions.

## 6. Display Image Check



1. Plain  
... White, yellow, light blue, green, purple, red and blue are displayed by using the [←] and [→] keys.
2. Color bar  
... These are white, yellow, light blue, green, purple, red and blue, from left to right.
3. Cross hatch
4. Sweep
5. Step
6. Ramp
7. Window
8. Monoscope
9. Frequency line
10. Horizontal stripe 1
11. Horizontal stripe 2
12. Japanese Kanji character pattern
13. Map (map.jpg)
14. Natural image (nature.jpg)
15. Portrait 1 (hito1.jpg)
16. Portrait 2 (hito2.jpg)

## 7. Device Check (for technical purposes only)



- The devices listed to the left are tested for technical purposes only.
- Selections are made by pressing the [↓] and [↑] keys, and then by pressing the [CR] key.
- If the test pattern is selected, the test will start.

## 7. GENERAL INFORMATION

### 7.1 DIAGNOSIS

#### 7.1.1 DISASSEMBLY

##### ● Removing the Case (not shown)

1. Remove the screw and then remove the Case.

##### ● Removing the DVD Mechanism Module (Fig.1)

- ➡ 1 Remove the four screws.

Disconnect the connector and then remove the DVD Mechanism Module.

##### ● Removing the Interface PCB (Fig.1)

- ➡ 2 Remove the two screws.
- ➡ 3 Remove the two screws.

Disconnect the connector and then remove the Interface PCB.

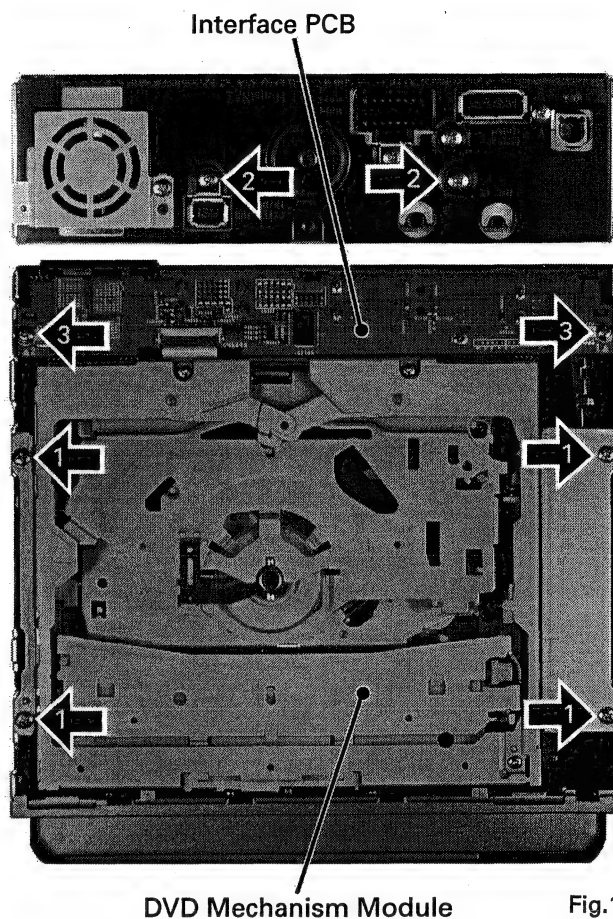


Fig.1

##### ● Removing the Grille Assy (not shown)

1. Remove the Grille Assy.

##### ● Removing the CC Unit (Fig.2)

- ➡ 1 Remove the solder and then straight the tab at location indicated.
- ➡ 2 Remove the three screws and then remove the CC Unit.

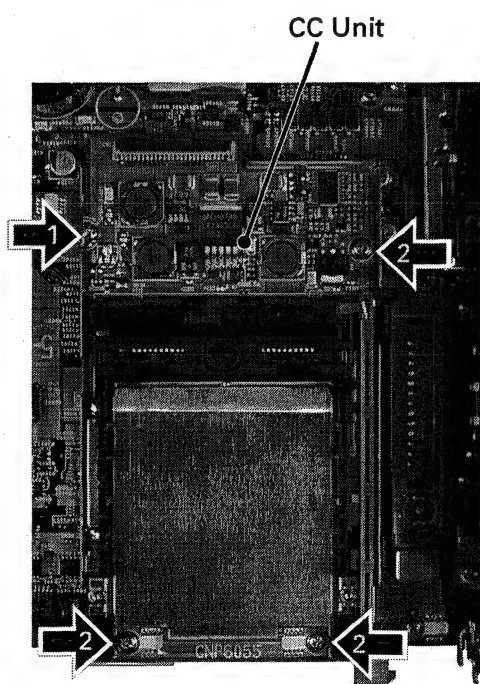


Fig.2

● Removing the Main PCB (Fig.3)

- ➡ 1 Remove the screw and then remove the Holder and the Battery.
- ➡ 2 Remove the screw and then remove the Fan Motor.
- ➡ 3 Remove the four screws.
- ➡ 4 Remove the six screws and then remove the Main PCB.

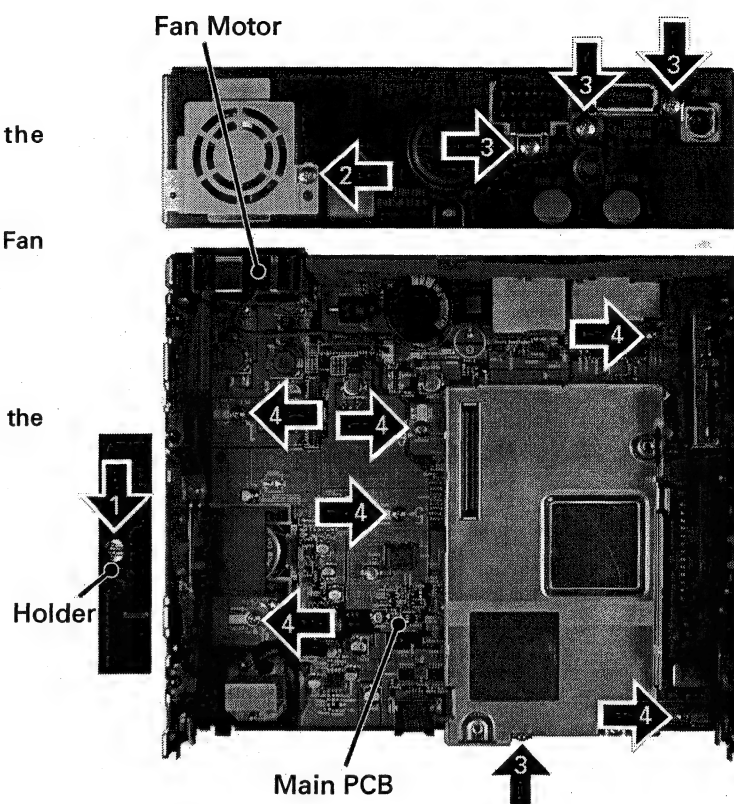
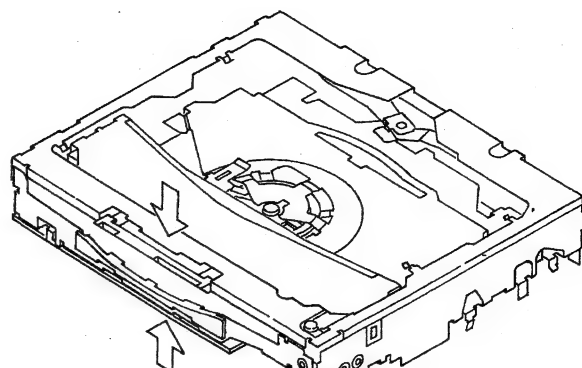


Fig.3



### ● Handling the mechanical module

1. The mechanical module should be handled by holding the upper frame and main frame of the mechanical module.
2. The front section of the upper frame is not very sturdy, so this section should not be held too firmly (see fig.4).



Do not hold onto this area.

Fig.4

### ● Removing the DVD CORE UNIT

1. Bring the mechanism to a locked position (disk load standby position).
2. Turn the mechanical module upside down.
3. Set the pick-up flexible cable to a shorted position on the land end (the other is auxiliary), and turn the SW knob in the direction opposite to OP (see fig.5).
4. Remove the pick-up flexible cable and the CRG flexible cable from the connector. Remove the solder on the lead wires of the load motor.
5. Remove screws at three locations, and remove the DVD Core Unit (lift the board in the direction of the white arrow shown in fig.6, and remove it out diagonally).

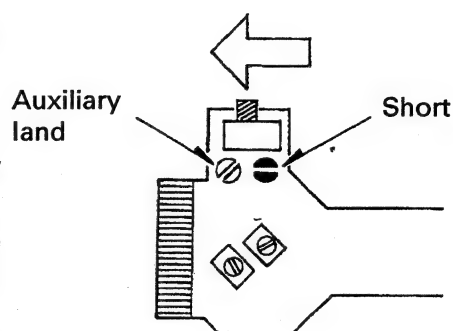


Fig.5

DVD Core Unit

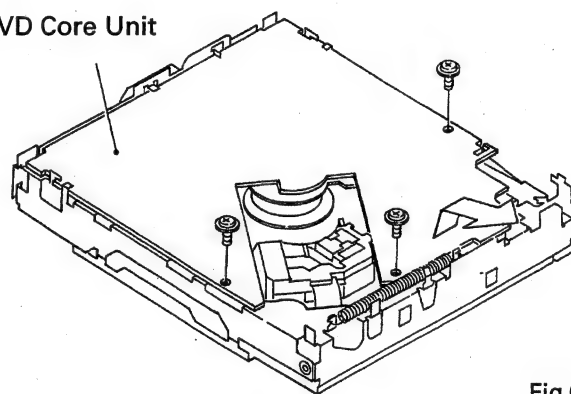


Fig.6

### ● Removing the PU unit (see fig.7)

1. Remove the DVD Core Unit according to the "Removing the DVD Core Unit" procedure described in the previous page.
2. Lift the pick-up rack to the center of the axis of the rack, turn it 90 degrees first, then press on it lightly, and fix it in place temporarily.
3. Remove the screw that keeps the main shaft clamp spring in place, and remove the main shaft clamp spring.
4. Remove the PU unit with the main shaft attached.

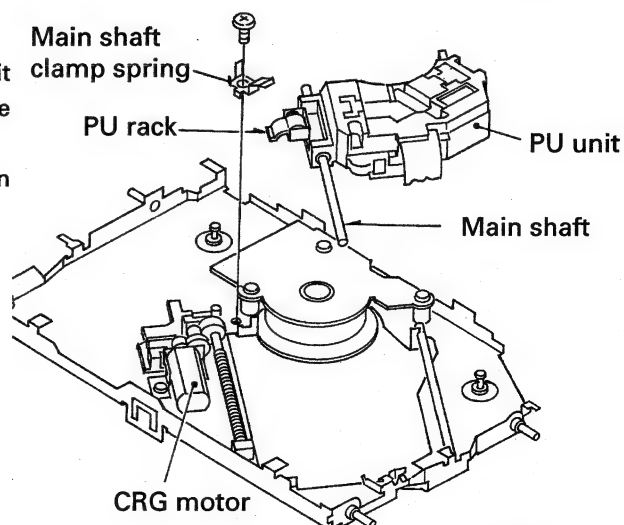
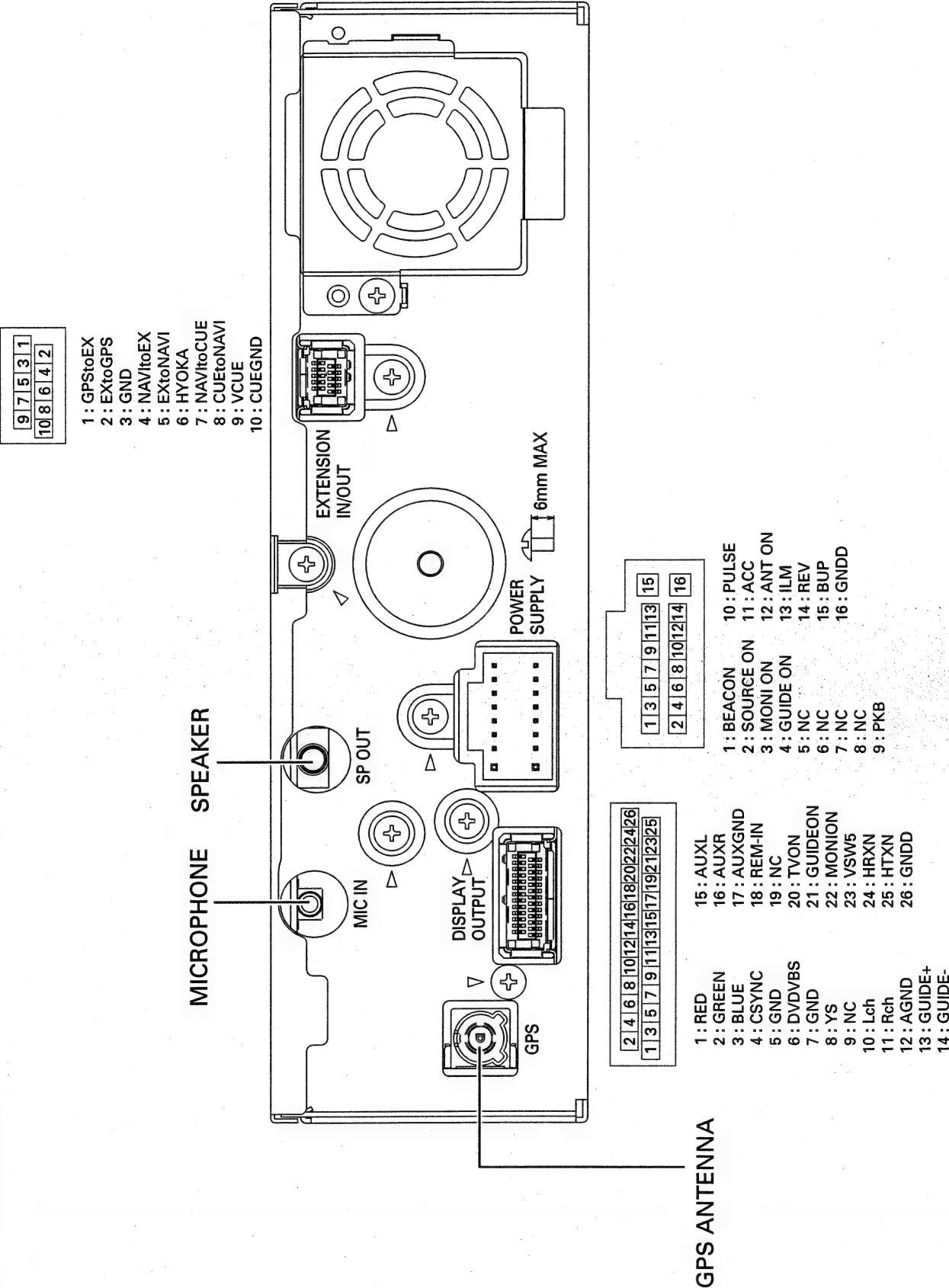


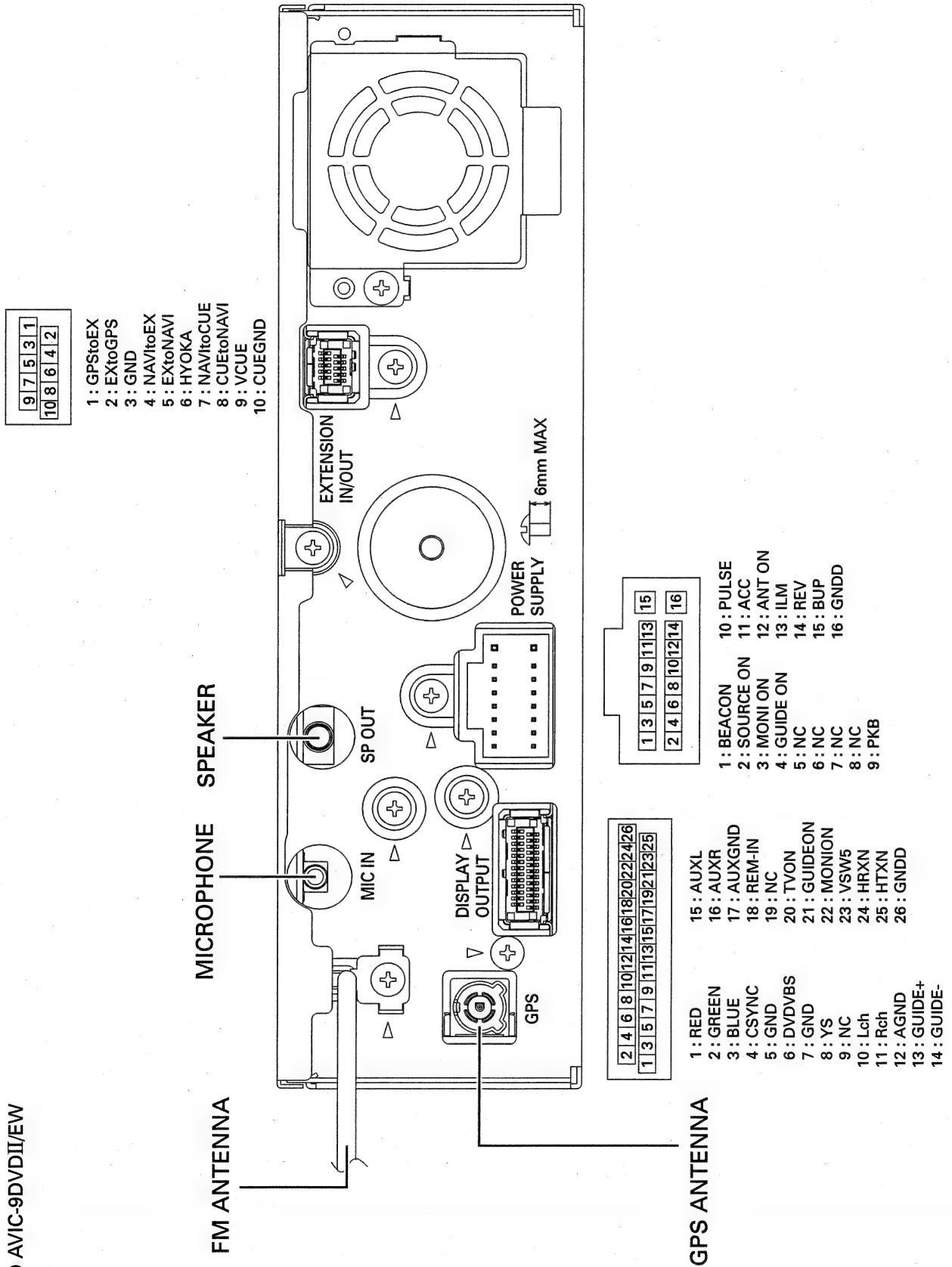
Fig.7

7.1.2 CONNECTOR FUNCTION DESCRIPTION

● AVIC-90DVD/JC



● AVIC-9DVDII/EW



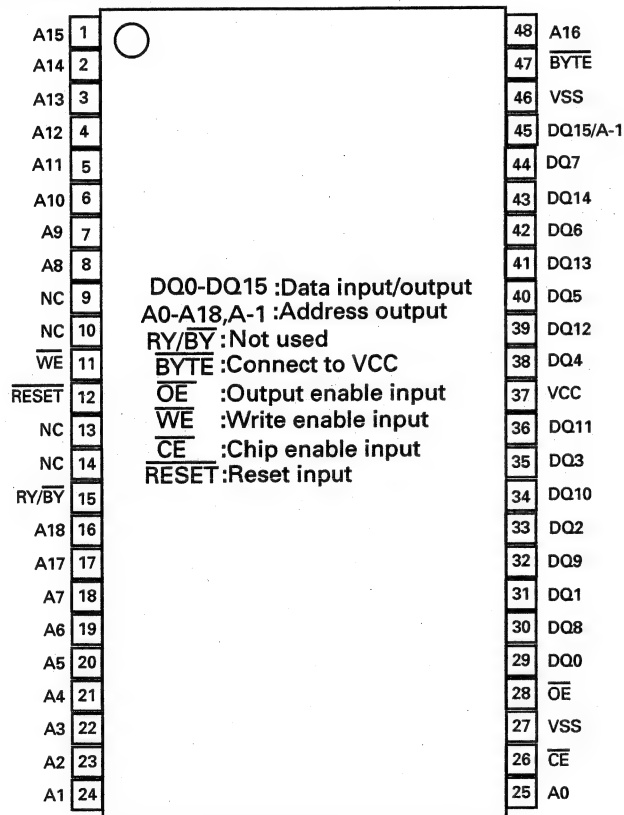
# AVIC-90DVD,9DVDII

## 7.2 IC

PD6403B	PD6336B
PD6401B	PD3390A
PD6404B	PE5228A
PD6402B	TDA7052A
MB86291APFVS-G-DL	LC72720YVS
K4S281632D-TL1L	PD6361B
ADC12H034CIMS A	TC74LCX541FT
PD6396B	
PE5324C	

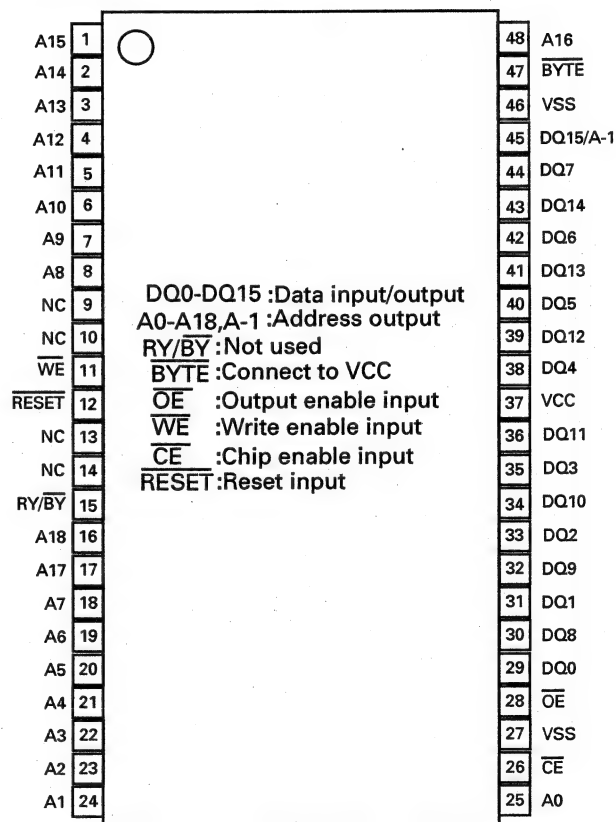
\*PD6403B(AVIC-90DVD/UC)

\*PD6401B(AVIC-9DVDII/EW)



\*PD6404B(AVIC-90DVD/UC)

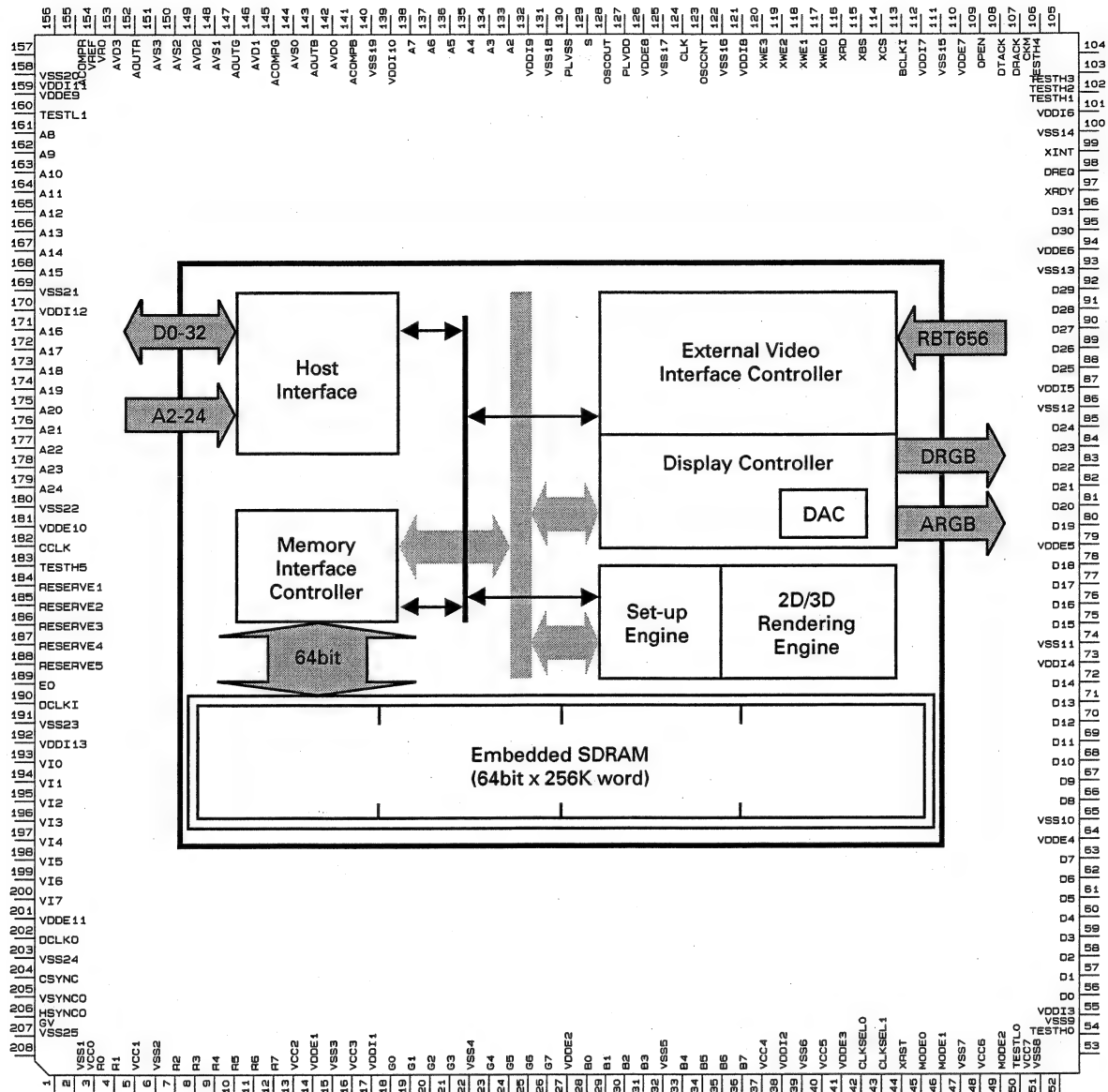
\*PD6402B(AVIC-9DVDII/EW)



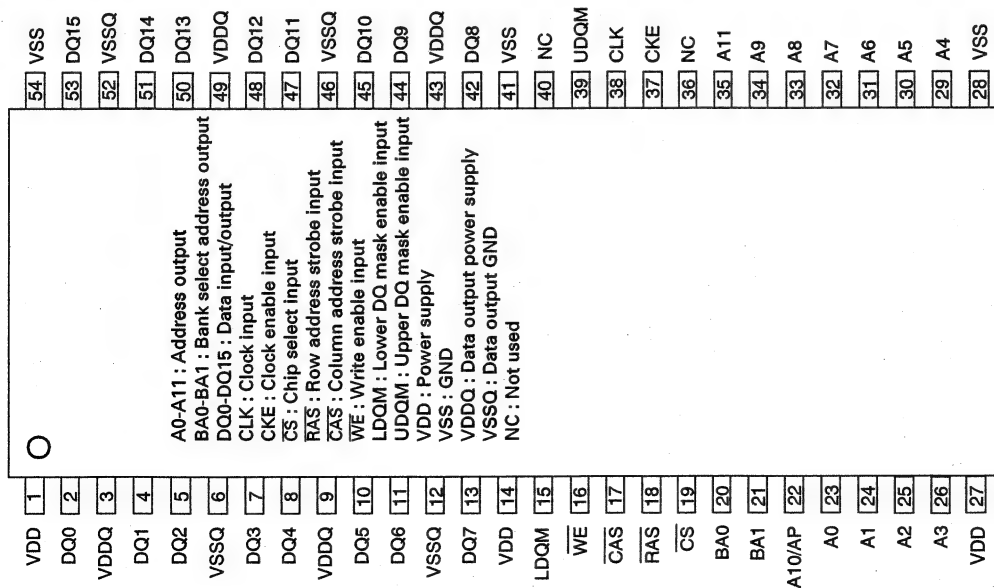
IC's marked by \* are MOS type.

Be careful in handling them because they are very liable to be damaged by electrostatic induction.

\*MB86291APFVS-G-DL

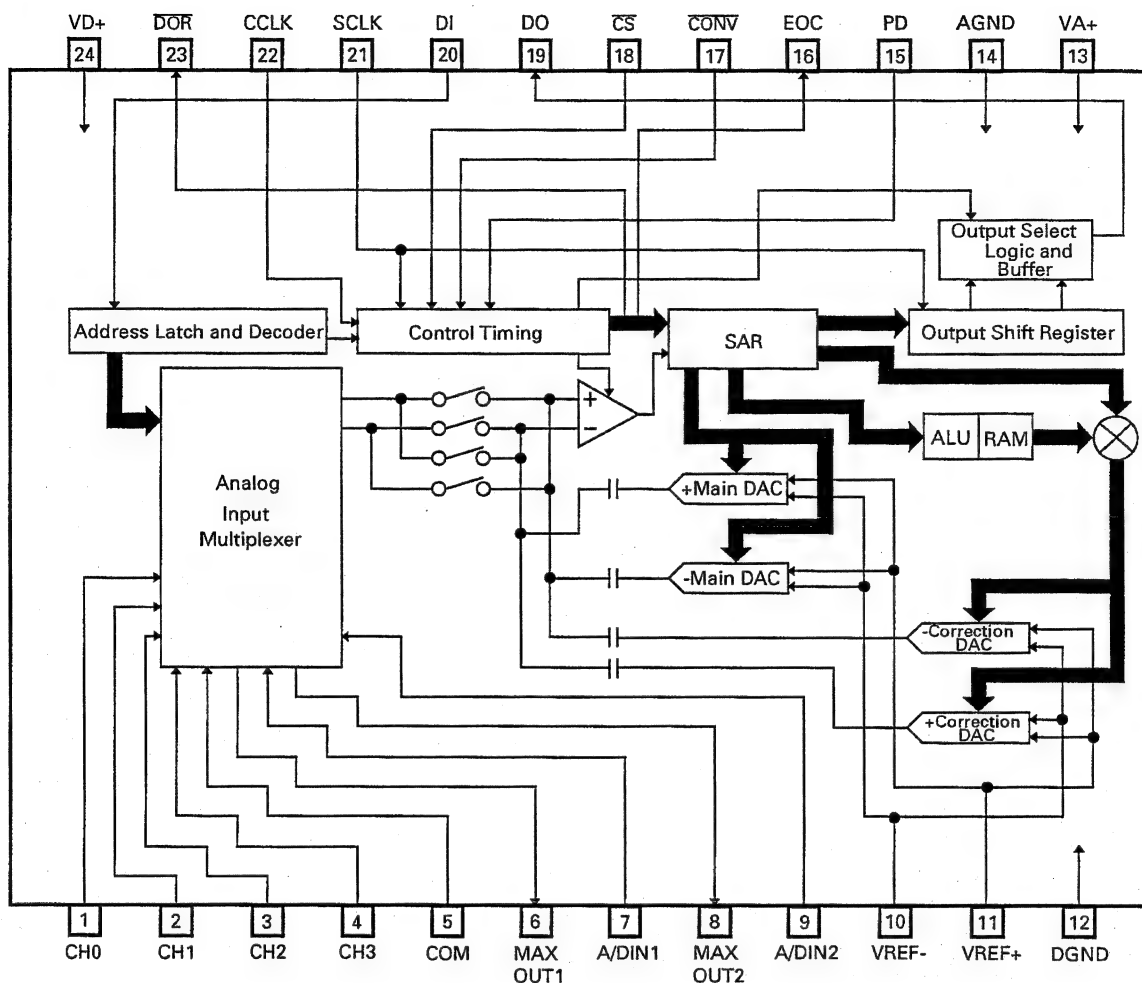


\*K4S281632D-TL1L

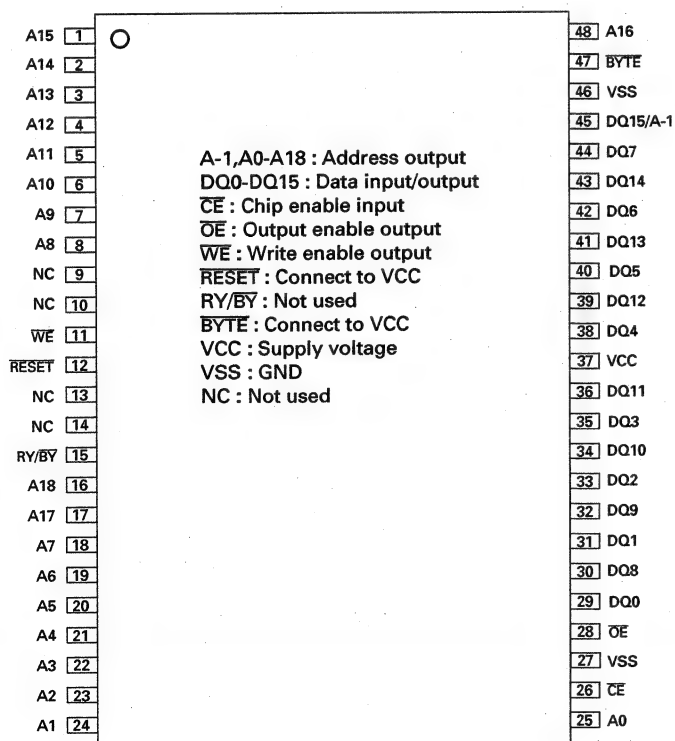


# AVIC-90DVD,9DVDII

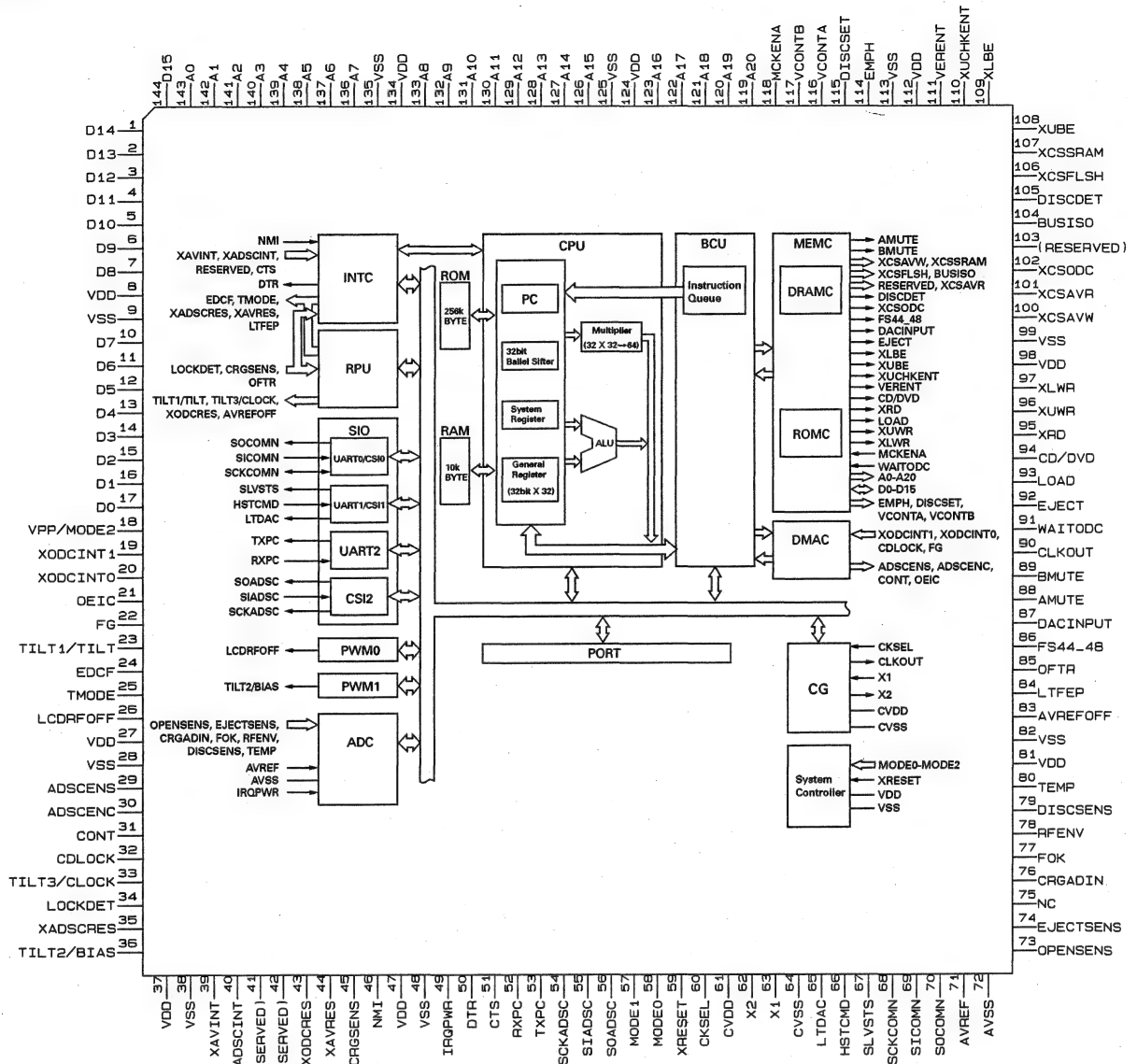
\*ADC12H034CIMS



\*PD6396B



\*PE5324C



\*PD6336B  
● Pin Arrangement Chart

1	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
2	85	160	159	158	157	156	155	154	153	152	151	150	149	148	147	146	145	144	143	142	63
3	86	161	228	227	226	225	224	223	222	221	220	219	218	217	216	215	214	213	212	211	62
4	87	162	229	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	273	272	61
5	88	163	230																		60
6	89	164	231																		59
7	90	165	232																		58
8	91	166	233																		57
9	92	167	234																		56
10	93	168	235																		55
11	94	169	236																		54
12	95	170	237																		53
13	96	171	238																		52
14	97	172	239																		51
15	98	173	240																		50
16	99	174	241																		49
17	100	175	242																		48
18	101	176	243																		47
19	102	177	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	197	126
20	103	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	125
21	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	44
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43

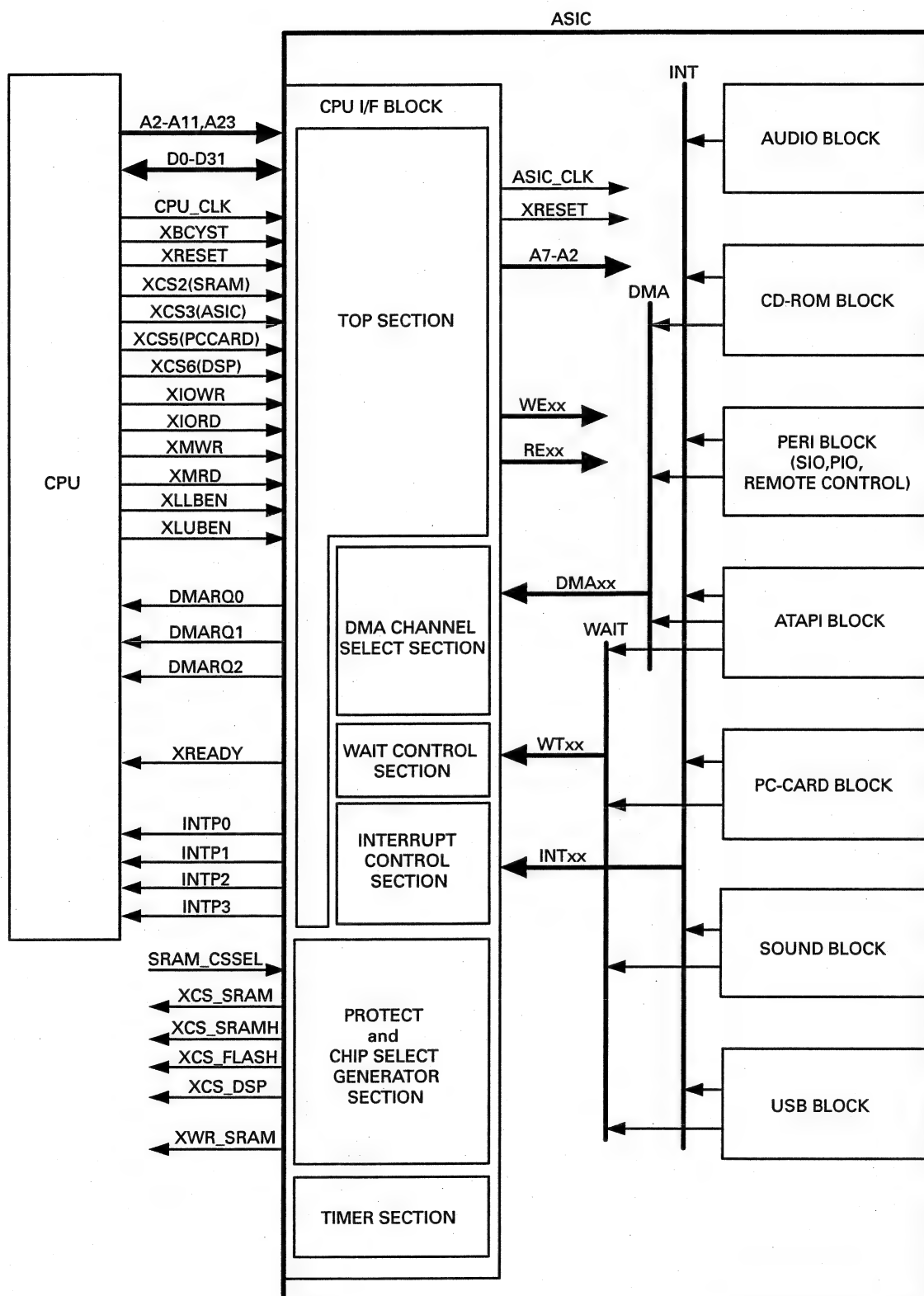
TOP VIEW

VSS	PIO27	DSP_BCLK1	PIO25	PIO24	PIO22	OVD03	DSP_BDI	DSP_BFSI	DSP_XHINT	DSP_HRDY	OVS56	DSP_BFSO	DSP_BCLK0	XCS_SRAMH	OVD02	DSP_XRS	DEP_ATTENT	D31	CD_MCLK	ADC_GCNT2	VSS
PIO29	PIO28	XCS_FLASH	D4	D6	OVS57	D10	XCS_DSP	D14	PIO23	D18	D20	DSP_BDO	D24	PIO_OUT	OVS55	TEST1	CD_LRCLK	CD_BLK	ADC_GCNT0	ADC_GCNT1	ADC_DATA
USBXVRCUR	D0	D1	VSS	VDD	D7	VDD	D12	D13	D16	D17	D19	D22	D23	D26	D27	D28	D30	A2	A3	ADC_BCLK	ADC_LRCLK
UVD1M	XMRD	XMR	VSS	VDD	D8	VDD	D11	VSS	D15	VDD	VDD	D21	VSS	D25	VDD	D28	VSS	VSS	A4	ADC_MCLK	TEST4
UVD1P	USEPWREN	XLBEN	VSS															VDD	A5	A6	EXTAL1
UVD2M	XIOWR	XIORD	VDD															VDDP	A7	A8	OVSS4
UVD2P	NC	NC	NC															VDD	A9	A10	XTAL1
USB_CLK	NC	NC	NC															A11	A12	TEST2	TEST3
XCS_SRAM	XREADY	XBCYST	VDD															VSS	PC_READY	DAC_MCLK	DAC_LRCLK
XMR_SRAM	SRAM_CSSEL	XCS2	VDD															PC_XVS2	PC_RESET	DAC_BCLK	DAC_DATA
PIO31	PIO30	XCS3	XCS5															VDD	PC_WXT	PC_XREG	PIO21
IR_RX	XCS6	DREQ0	VSS															VDD	PC_BVD1	PC_A0	OVSS3
TEST0	XTST	DREQ1	DREQ2															VSS	PC_XCD2	PIO19	PIO18
XTAL0	SMCK	INT3	VDD															VDD	PC_XCD1	PIO17	PIO16
MST	XSM	INT2	INT1															VDD	PC_XCE2	PIO15	PIO14
EXTAL0	GDC_WT	INT0	VDD															PC_XOE	PC_XVS1	PIO13	PIO12
UART8_TXD	UART8_RXD	ATA_DAO	VSS															VSS	PC_XIORD	PIO11	PIO10
UART8_TXD	UART8_RXD	ATA_DA1	ATA_INT															VSS	PC_XIOWR	PIO9	PIO8
UART7_TXD	UART7_RXD	UART8_RXD	OVSS0															PC_XUBUF	PC_XWE	PIO7	PIO6
VSS	UART8_TXD	UART8_RXD	UART8_TXD	UART4_TXD	UART3_TXD	OVD00	UART2_TXD	UART2_RXD	UART1_TXD	A23	CPU_CLK	OVSS1	UART1_XCS	UART_XDSR	OVD01	UART1_XRS	PIO0	PIO1	OVSS2	PIO3	VSS

TOP VIEW



● Block Diagram Chart

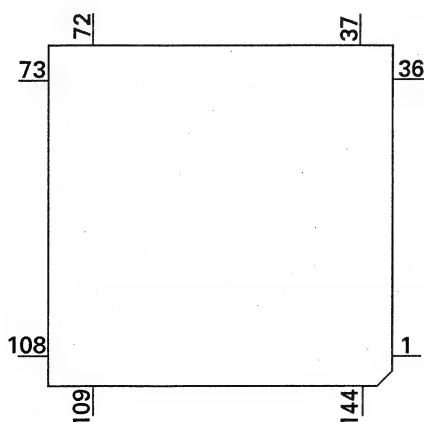


● Pin Functions(PD3390A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	VCC0			Power supply (3.3V)
2	VSS0			GND
3	TXD2	I/O		SIO2 Transmission data input / output
4	RXD2	I/O		SIO2 Reception data input / output
5	TXD1	O	C	SIO1 Transmission data output
6	RXD1	I		SIO1 Reception data input
7	TXD0	O	C	SIO0 Transmission data output
8	RXD0	I		SIO0 Reception data input
9	SPEED	I		SP I/F input
10	ADCSB	O	C	AD I/F output
11	ADSCK	O	C	AD I/F output
12	ADTXD	O	C	AD I/F output
13	ADRXD	I		AD I/F input
14	ADSRX	I		AD I/F input
15	ADIO0	I/O		AD I/F input / output
16	ADIO1	I/O		AD I/F input / output
17	ADIO2	I/O		AD I/F input / output
18	VCC1			Power supply (3.3V)
19	VSS1			GND
20	PWM	O		PWM signal output
21	PLINT	I		PLL I/F input
22	PLCE	O	C	PLL I/F output
23	PLSCK	O	C	PLL I/F output
24	PLTX	O	C	PLL I/F output
25	PLRX	I		PLL I/F input
26	PLIO0	I/O		PLL I/F input / output
27	PLIO1	I/O		PLL I/F input / output
28	PLIO2	I/O		PLL I/F input / output
29	DDINT	I		Darc I/F input
30	DDCE	O	C	Darc I/F output
31	DDSCK	O	C	Darc I/F output
32	DDTX	O	C	Darc I/F output
33	DDRXX	I		Darc I/F input
34	DDIO0	I/O		Darc I/F input / output
35	DDIO1	I/O		Darc I/F input / output
36	DDIO2	I/O		Darc I/F input / output
37	TIOA0	I/O		Parallel input / output
38	TIOA1	I/O		Parallel input / output
39	TIOB0	I/O		Parallel input / output
40	TIOB1	I/O		Parallel input / output
41	VCC2			Power supply (3.3V)
42	VSS2			GND
43-53	A19-9	I/O		Address bus input / output
54	VCC3			Power supply (3.3V)
55	VSS3			GND
56-64	A8-0	I/O		Address bus input / output
65	VCC4			Power supply (3.3V)
66	VSS4			GND
67-82	D0-15	I/O		Address bus input / output
83	VCC5			Power supply (3.3V)
84	VSS5			GND
85	WRHB	I/O		Upper data write strobe input / output
86	WRLB	I/O		Lower data write strobe input / output
87	RDB	I/O		Read data strobe input / output
88	CS2B	I/O		Chip select aria 1 for external storage input / output
89	CS0B	I/O		Chip select aria 0 for ROM input / output
90	VCC6			Power supply (3.3V)

Pin No.	Pin Name	I/O	Format	Function and Operation
91	VSS6			GND
92	TEST2			Test mode
93	CKOEB	I		CK output enable input
94	CK	O	C	CPU clock output
95	CS5B	O	C	DRAM low address strobe output
96	CS3B	O	C	DRAM column address strobe output
97	CS1B	O	C	DRAM column address upper byte strobe output
98	RTCVSS1			Power supply (3.3V)
99	SRAMB	I		Backup memory select input
100	STANBYB	I		Stand by signal input
101	RTCVSS0			GND
102	XRTCIN	I		Sub crystal oscillator input (RTC)
103	XRTCOUT	O	C	Sub crystal oscillator output (RTC)
104	RTCVCC			Power supply (3.3V)
105	PCKSEL0	I		Processor clock select input
106	PCKSEL1	I		Processor clock select input
107	CCKSEL	I		CRCK signal select input
108	CCKDIR	I/O		Carrier clock direct input / inverter amp output
109	CCKVCC			Power supply (3.3V)
110	CRCK	I		Carrier clock
111	CCKGND			GND
112-118	PC0-6	I/O		Parallel input / output
119	NMI	I/O		Connect to VCC
120	RESETB	I		System reset input
121	MSTRSTB	I		Test reset input
122	TEST0	I		Test mode input
123	TEST1	I		Test mode input
124	REFSEL	I		GPS reference clock select input
125	REFCK	I		Reference clock input
126	VCC7			Power supply (3.3V)
127	VSS7			GND
128	XAUXIN	I		Sub crystal oscillator output (AUX)
129	XAUXOUT	O	C	Sub crystal oscillator output (AUX)
130-133	PIN0-3	I		Parallel input
134-137	PIO4-7	I/O		Parallel input / output
138	TXD3	I/O		SIO3 Transmission data input / output
139	RXD3	I/O		SIO3 Reception data input / output
140	BOWWOWB	O	C	Watch dog timer output
141	IFDIR	I/O		IF direct input / IF inverter amp output
142	IFVCC			Power supply (3.3V)
143	IF	I		IF input
144	IFGND	I		IF amp GND input

\*PD3390A



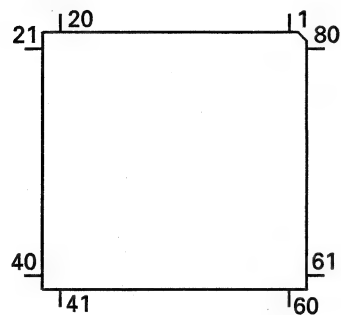
Format	Meaning
C	C MOS

**● Pin Functions (PE5228A)**

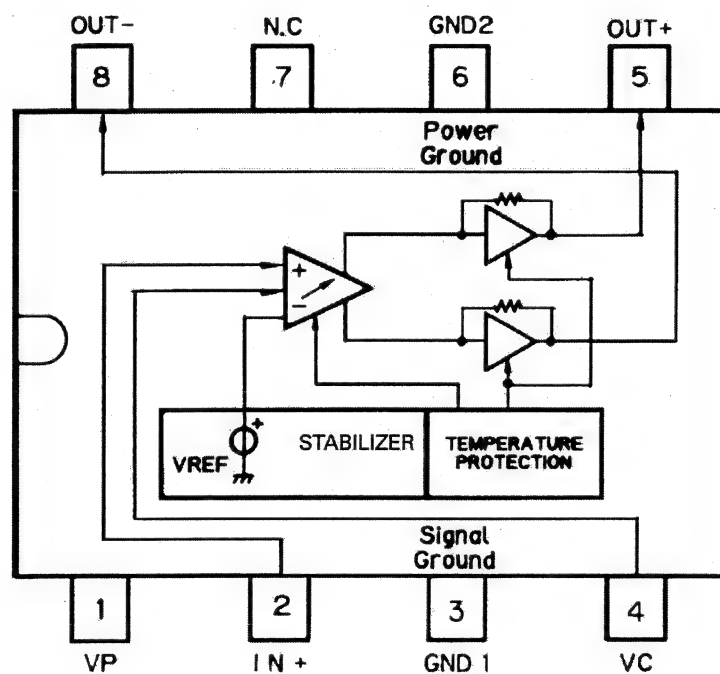
Pin No.	Pin Name	I/O	Format	Function and Operation
1-3	NC			Not used
4	AVSS			A/D GND
5	VOL	O		Guide voice volume output
6	NC			Not used
7	AVREF1			(D/A converter reference voltage)
8	FROMCC	I		Data input from CC UNIT (UART)
9	TOCC	O	C	Data output to CC UNIT (UART)
10	NC			Not used
11	FORMEX	I		Data input from EXT (UART)
12	TOEX	O	C	Data output to EXT (UART)
13-15	NC			Not used
16	TSI/FSI	I		Test program data input
17	TSO/FSO	O	C	Test program data output
18	TSCKFCK	I		Test program clock input
19,20	NC			Not used
21	ROMDT	O	C	ROM collection data output
22	ROMCLK	O	C	ROM collection clock output
23	ROMCS	O	C	ROM collection chip select output
24	ACCPW	O	C	ACC power supply output
25	GPSON	O	C	GPS power supply ON output
26	DRAMPW	O	C	DRAM power supply control output
27	RGBMUTE	O	C	RGB audio mute output
28	RCAMUTE	O	C	RCA audio mute output
29	RSTOUT	O	C	Reset output
30	DVDON	O	C	DVD power supply ON output
31	CCON	O	C	Car computer power supply ON output
32	IRQPOW	O	C	Emergency stand-by request output (BSENS)
33	VSS1			GND
34,35	NC			Not used
36-38	SIMUKE0-2	I		Model detect input 0-2
39,40	SEDAI0,1	I		Generation detect input 0,1
41	TVON	O	C	TV communication enable output
42	ALARMOUT	O	C	Detach warning LED output
43	MAYSNS	I		MAYDAY UNIT detect input (H : No unit)
44-47	CCPORT0-3	O	C	Control port output from CC UNIT 0-3 (Stand-by time = L)
48,49	INPORT0,1	I		Input notice port input to CC UNIT 0,1 (Stand-by time = L)
50	TESTMODE	I		Navigation test mode detect input (H : Test mode)
51	TESTIN	I		Chip test / Enable input (L : Chip test)
52	NC			Not used
53	CPUWDT	I		WDT operation input from CC UNIT
54	NC			Not used
55	M/S	I		Master / Slave input (H : Alone)
56,57	NC			Not used
58	TIMEOUT	I		(L : No time-out)
59	NC			Not used
60	RESET	I		Reset input
61	REMIN	I		Remote control data input
62	BSENS	I		Back Up sense input
63	ASENS	I		ACC sense input
64	HELPIIN	I		HELP system SW input
65	DISC	I		DISC detect input
66	NC			Not used
67	VSS0			GND
68	VDD1			Power supply
69	X2			Crystal oscillating element connection pin (Main system)
70	X1			Crystal oscillating element connection pin (Main system)

Pin No.	Pin Name	I/O	Format	Function and Operation
71	TEST/VPP			Connect to GND
72	XT2			Crystal oscillating element connection pin (Sub system)
73	XT1			Crystal oscillating element connection pin (Sub system)
74	VDD0			Power supply
75	AVDD			(A/D converter power supply)
76-80	NC			Not used

\*PE5228A



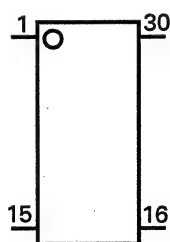
TDA7052A



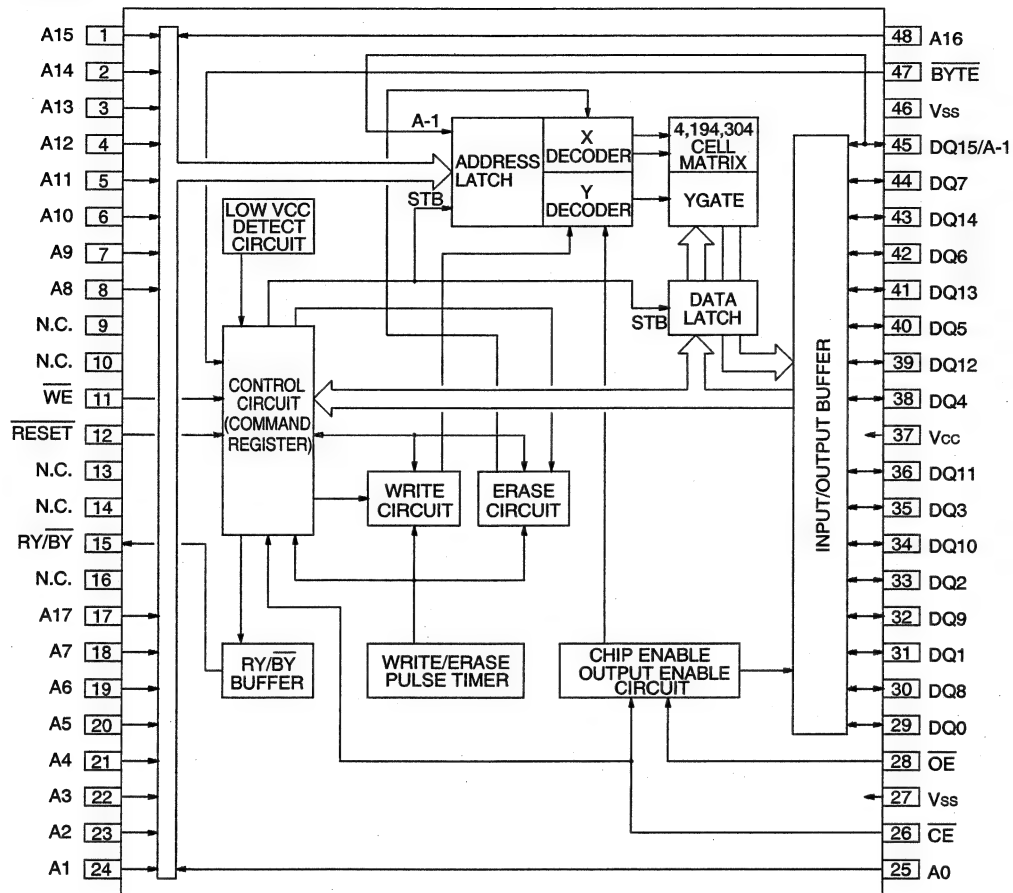
● Pin Functions(LC72720YVS)

Pin No.	Pin Name	I/O	Function and Operation
1	VREF	O	Reference voltage output
2	MPXIN	I	Base band (multiplexed) signal input
3	Vdda		Analog system power supply (+5V)
4	NC		Not used
5	Vssa		Analog system GND
6	FLOUT	O	Sub carrier output (filter output)
7	CIN	I	Sub carrier input (comparator input)
8	NC		Not used
9	T1	I	Test input (connect to GND)
10	T2	I	Test input (stand-by control)
11	T3	O	RDS clock output
12	NC		Not used
13	T4	O	RDS data output
14	T5	O	Soft-decision control data output
15	XOUT	O	Crystal oscillator output
16	XIN	I	Crystal oscillator input
17	Vddd		Digital system power supply (+5V)
18	Vssd		Digital system GND
19	NC		Not used
20	T6	O	Error status, regenerated carrier and error block count outputs
21	T7	O	Error correction status, SK detection and error block count outputs
22	SYNC	O	Block synchronization detection output
23	NC		Not used
24	RDS-ID	O	RDS detection output
25	DO	O	Data output
26	CL	I	Clock input
27	NC		Not used
28	DI	I	Data input
29	CE	I	Chip enable input
30	SYR	I	Synchronization and RAM address reset input

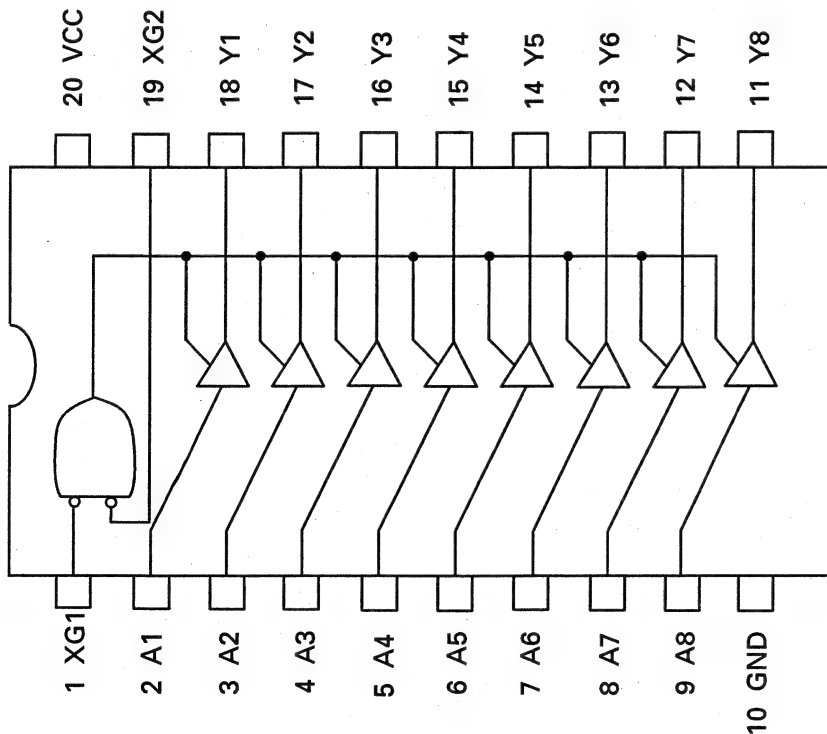
\*LC72720YVS



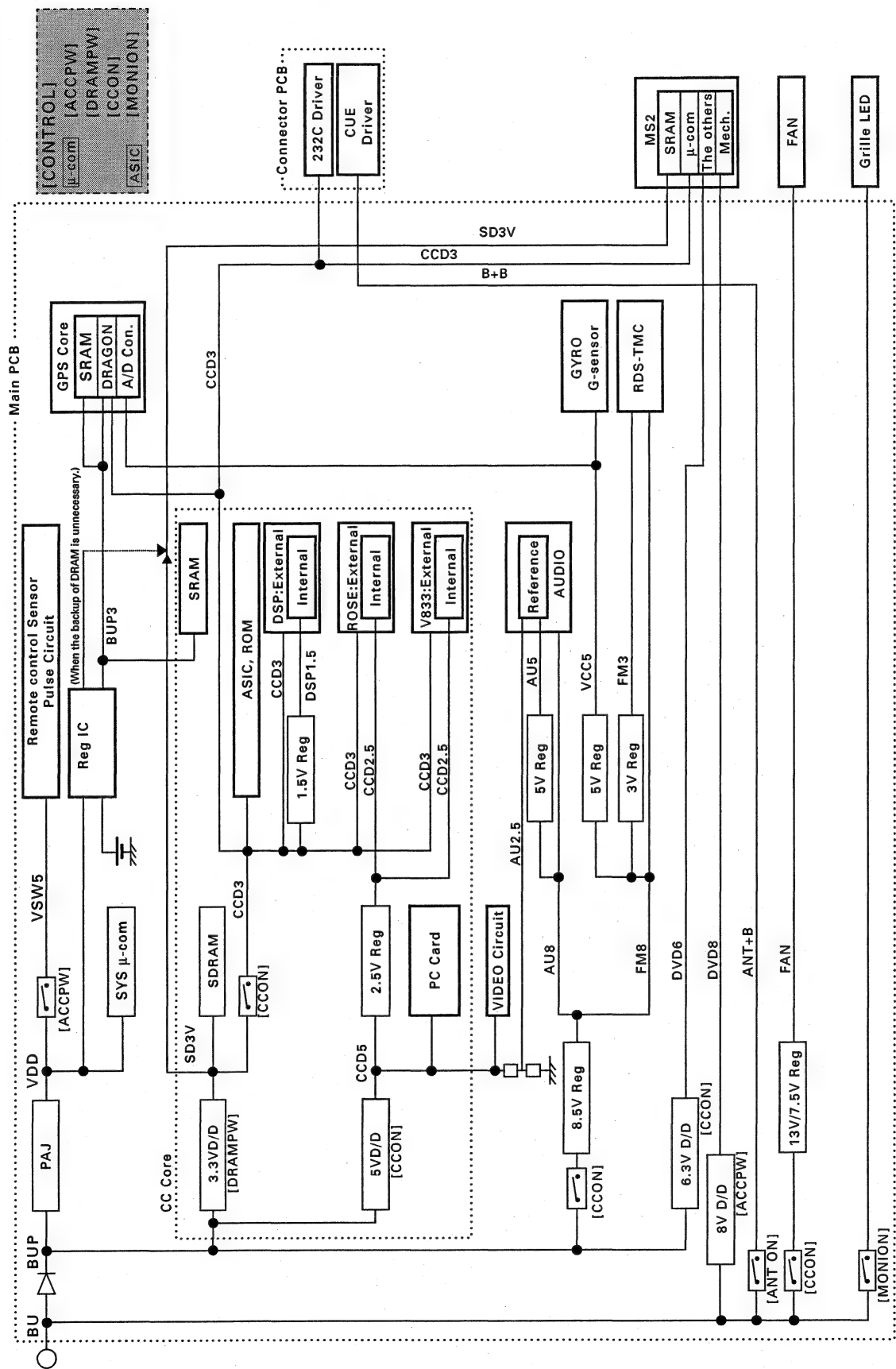
\*PD6361B



\*TC74LCX541FT

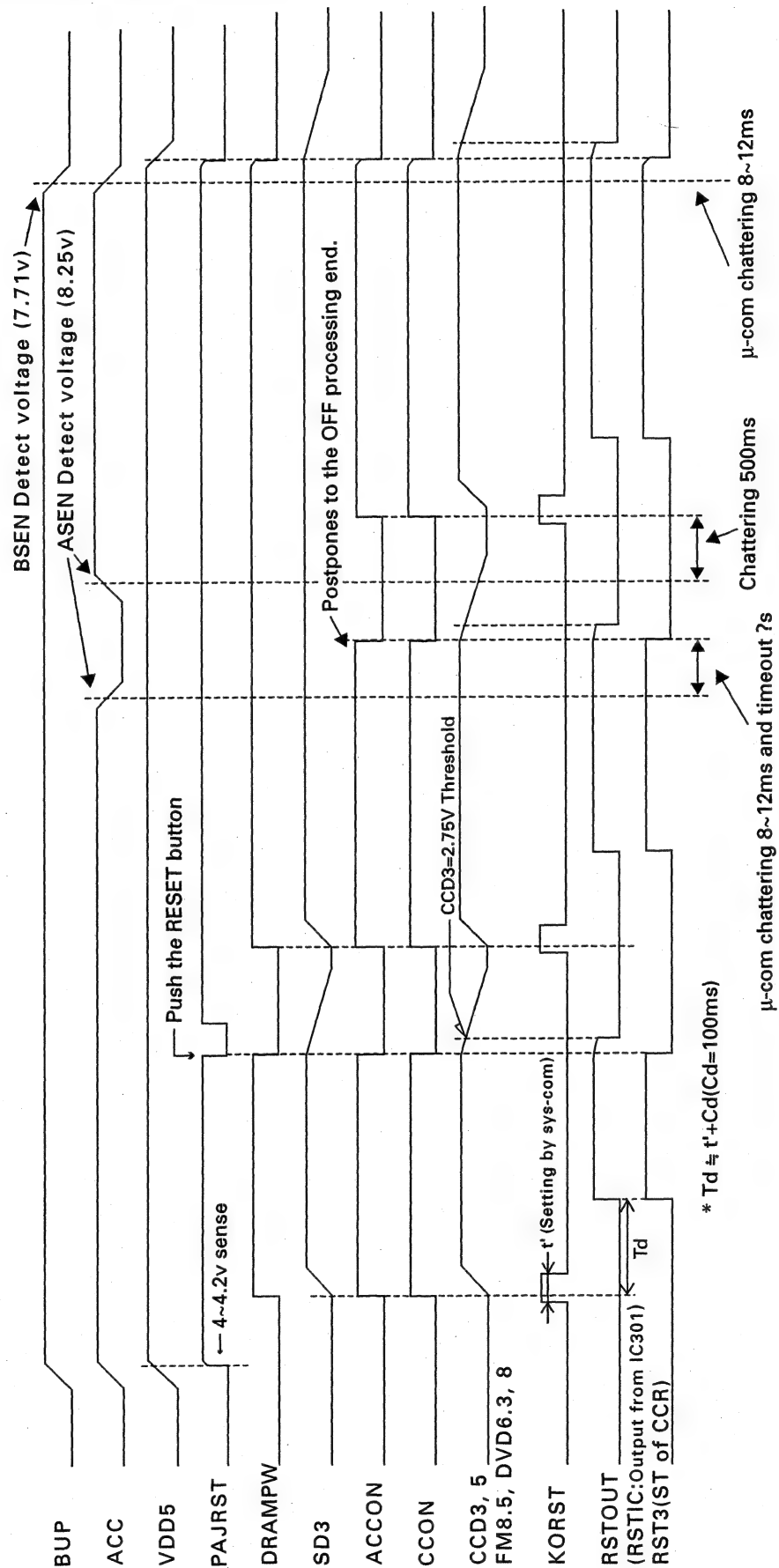


7.3 EXPLANATION  
7.3.1 CIRCUIT DESCRIPTIONS





### 7.3.2 OPERATIONAL FLOW CHART



## 7.4 CLEANING

Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

Portions to be cleaned	Cleaning tools
DVD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

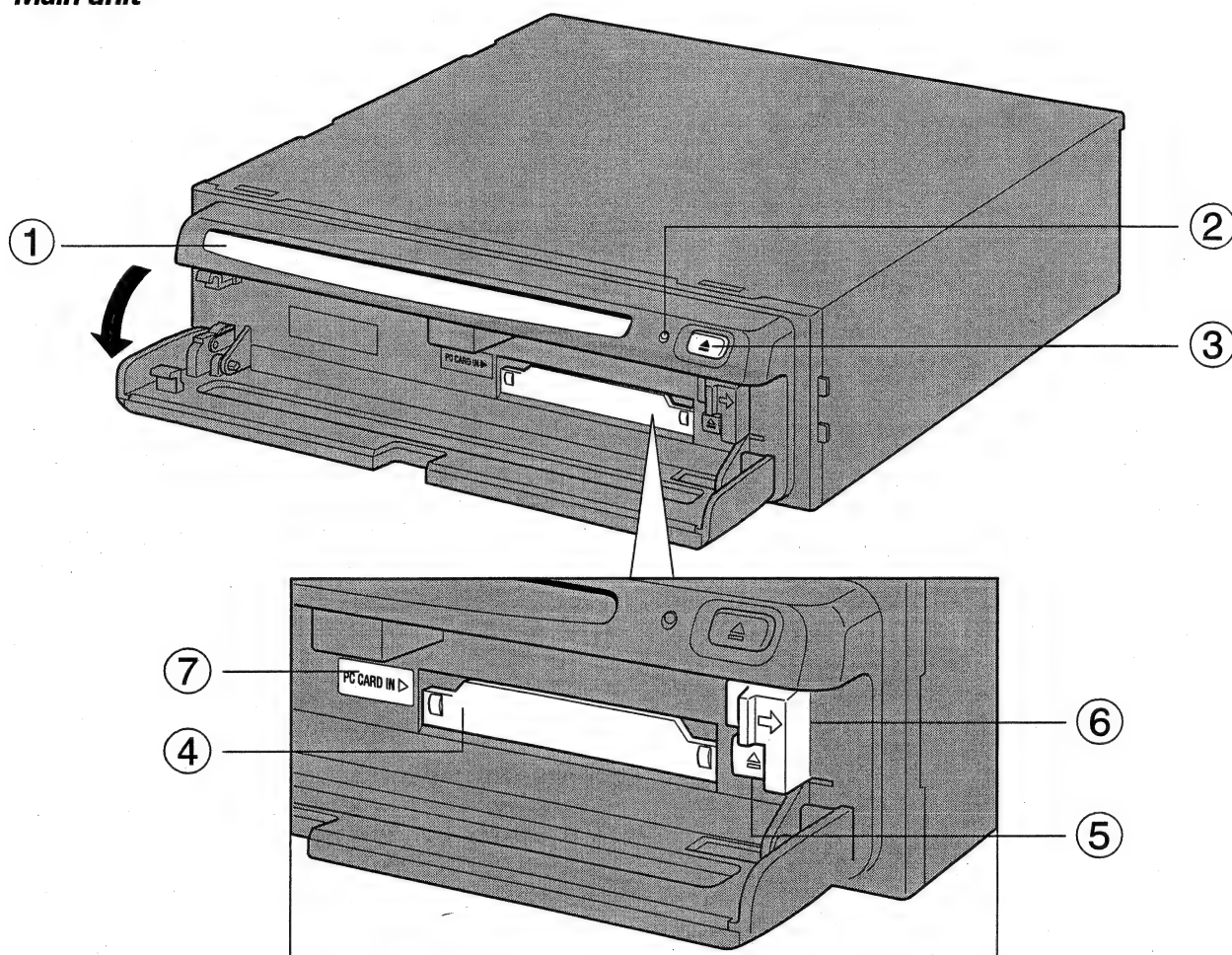
Portions to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

## 8. OPERATIONS AND SPECIFICATIONS

### 8.1 OPERATIONS

#### *Key Finder*

#### *Main unit*



**(1) Disc loading slot**

**(2) Reset button**

If the system goes wrong, reset it by pressing this recessed button with a ballpoint pen or similar pointed object.

**(3) Disc ejection button**

**(4) PC card slot**

**(5) PC card ejection button**

Remove the PC card by pressing this button.

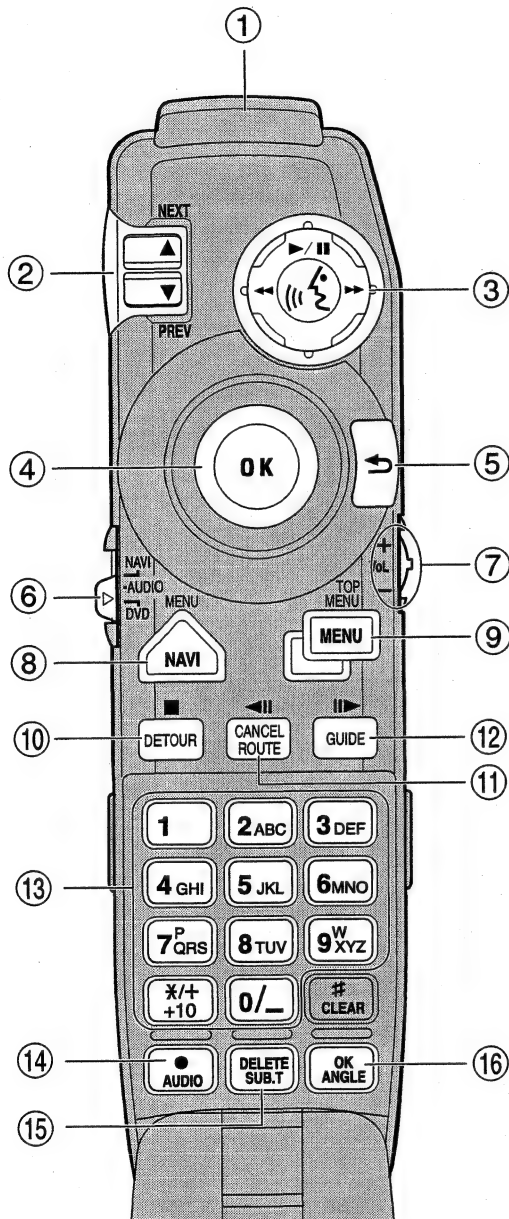
**(6) PC card lock lever**

This lever is used when you remove the PC card.

**(7) PC card lock lamp**

The red light goes on when the PC card is inserted and a proper connection is made.

## NAVIGATION Operation



### (1) Transmitter

Signals of the Remote Control are transmitted from here.

### (2) NEXT/PREV control

You use the scale control to enlarge or reduce the displayed map. When you move the scale control downwards, the scale of the displayed map is enlarged and a more detailed map is displayed. Conversely, moving it upwards reduces the displayed map, and a wider area is displayed. In menus, when a list is longer than one screen, this control is used for indicating the next screen or previous screen.

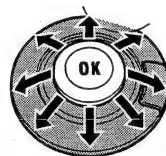
### (3) Control stick and PLAY/PAUSE button (TALK button)

You use the TALK button to start voice recognition, allowing you to command the Navigation System by speech. When a voice command is given, you can cycle through possible matches by clicking down this button.

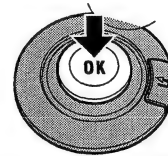
With the "CD-SR80" Steering Remote Control (sold separately), you can press the BAND button and the F button to switch on the operation mode of the Steering Remote Control. When the operation mode is switched on, by pressing the BAND button of the Steering Remote Control, you can activate voice operation, which is equivalent of pressing the TALK button. "CD-SR90" and "CD-SR100" also can start voice operation, which is equivalent of pressing the TALK button. (For the details of the operation, see the Owner's manual of each steering remote control.)

### (4) Joystick/OK button

Use the joystick to select items in the display and to scroll the map. The joystick is also the OK button; simply press it to select a location on the map or an option displayed on the screen.



**Used as the joystick :**  
Directions of movements indicated by arrows are possible.



**Used as the OK button :**  
Press straight down.

**(5) BACK button**

While using a menu, pressing this button cancels the present operation and returns you to the previously displayed menu or list.

**(6) Operation mode switch**

Changes the remote control's mode.

**(7) VOL dial**

When you turn the dial downwards, the volume decreases. Turning it upwards increases the volume.

- When the Dipswitch 4 is ON, the volume of the voice guidance of the Navigation System is adjusted.
- When the Dipswitch 4 is OFF, the volume of Pioneer Head Unit is adjusted. If the dial is pressed, the volume is reduced to around 1/10th of the volume (ATT function). When pressed again, the volume returns to its previous level.

**(8) MENU (NAVI) button**

You press this button to view the map or return to guidance. Also, when the map is scrolled, pressing this button returns to the display of the map of your surroundings.

**(9) TOP MENU (MENU) button**

Pressing this button displays a menu of options.

**(10) ■ (DETOUR) button**

Press this button to restart route calculation, such as calculating a detour. If this button is pressed for more than two seconds, you can see the information (passing roads and driving distance, and so on) of the route down which you are currently being guided.

**(11) ◀|| (CANCEL ROUTE) button**

Press this button to cancel the route guidance. When pressed for more than two seconds, the next via point is recognised as already being passed, and a new route calculation starts.

**(12) ||▶ (GUIDE) button**

Press this button if you want to hear the voice guidance again. If this button is pressed for more than two seconds, you can listen to traffic information on your route (where available).

**(13) Numeric keypad**

You use this pad for entering characters or numbers.

**(14) AUDIO [•] button**

Not used.

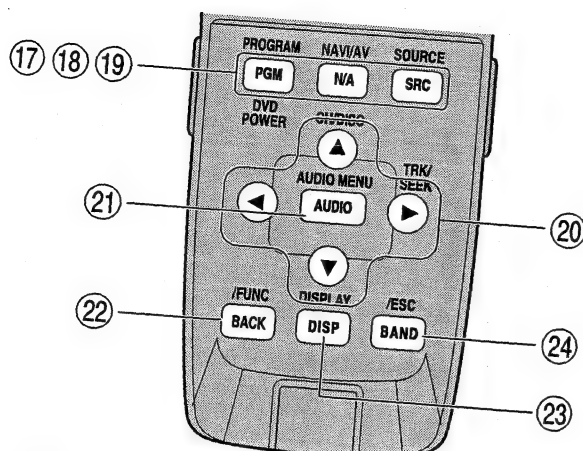
**(15) SUB.T (DELETE) button**

Press to delete the character you just entered. If you press this button for more than two seconds, all the characters entered will be deleted.

**(16) ANGLE (OK) button**

This works in the same way as "OK" on the text palette.

# AVIC-90DVD,9DVDII



## **(17) PGM (DVD POWER) button**

Function is preset for each source as shown below. Sources not shown below do not feature this function. (Depending on the component, you can change the Preprogram. For details, refer to the Head Unit's instructions.)  
Not effective with NAVIGATION built-in sources.

CD (one disc only),	PAUSE
Multi-CD player,	
DVD player (one disc only),	
Multi-DVD player :	
TUNER :	BSM (Press for 2 seconds or more)
TV :	BSSM (Press for 2 seconds or more)
External unit :	FUNC1

## **(18) NAVI/AV button**

Switches the display to the desired indications. Use to switch between Navigation map displays and audio component displays.

## **(19) SRC (SOURCE) button**

Switches between sources and switches power ON/OFF. (Depending on the connected units, operation may differ slightly. Refer to "Switching Sources" in the connected unit's instructions.)

## **(20) Cross Key ◀, ▶, ▲, ▼ button**

Use to skip CD tracks, perform preset tuning with the tuner, and select items indicated in the display.

## **(21) AUDIO (A.MENU) button**

Displays audio menus.

Setting C : Not used.

## **(22) BACK/FUNC button**

Setting A : Returns you to the previous display.

Settings B and D : Display function menus.

Setting C : Not used.

## **(23) DISP button**

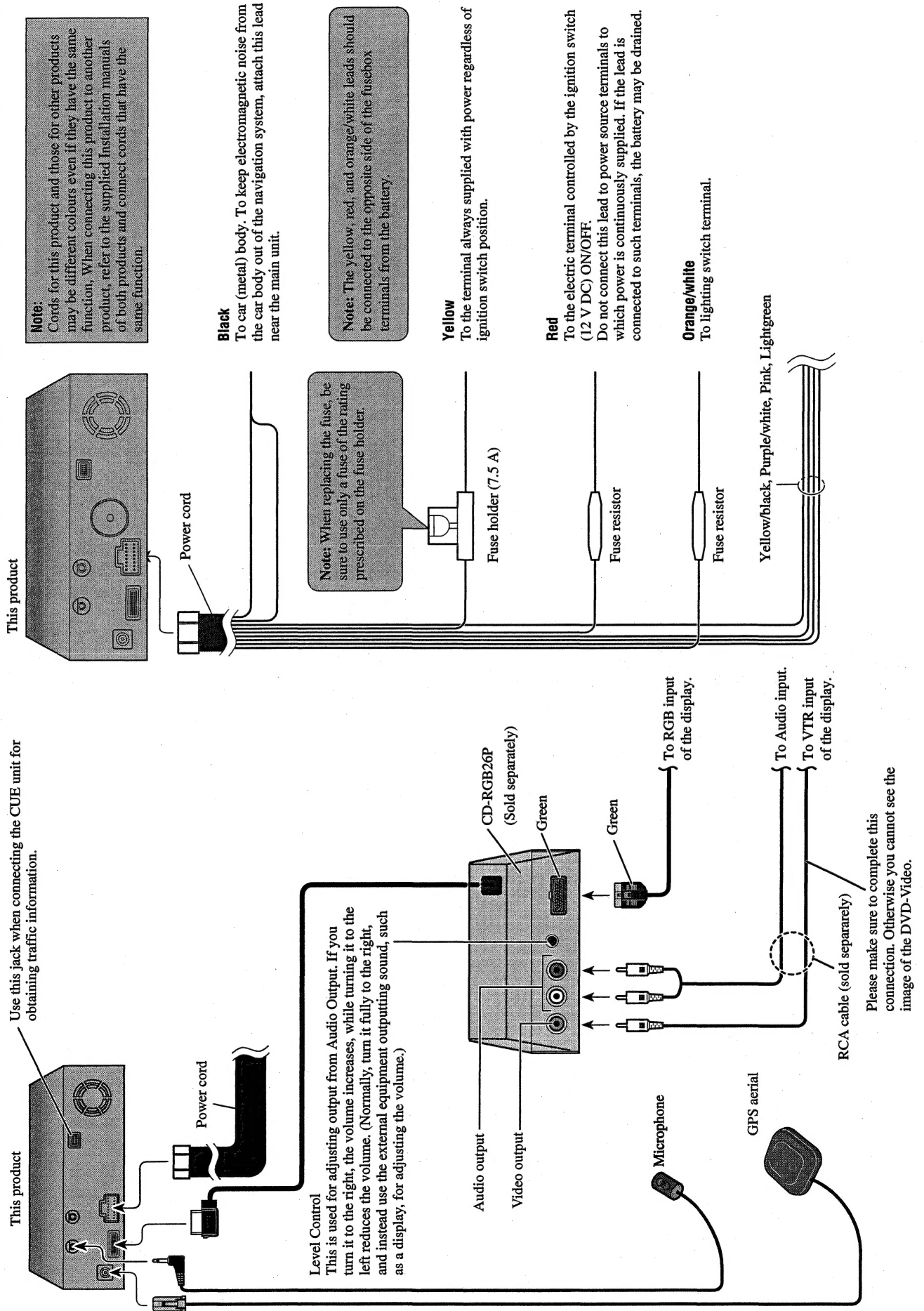
If, for example, you use this product with a Multi-CD player, when playing a CD TEXT disc you can enjoy display of the CD title and other information.

## **(24) BAND/ESC button**

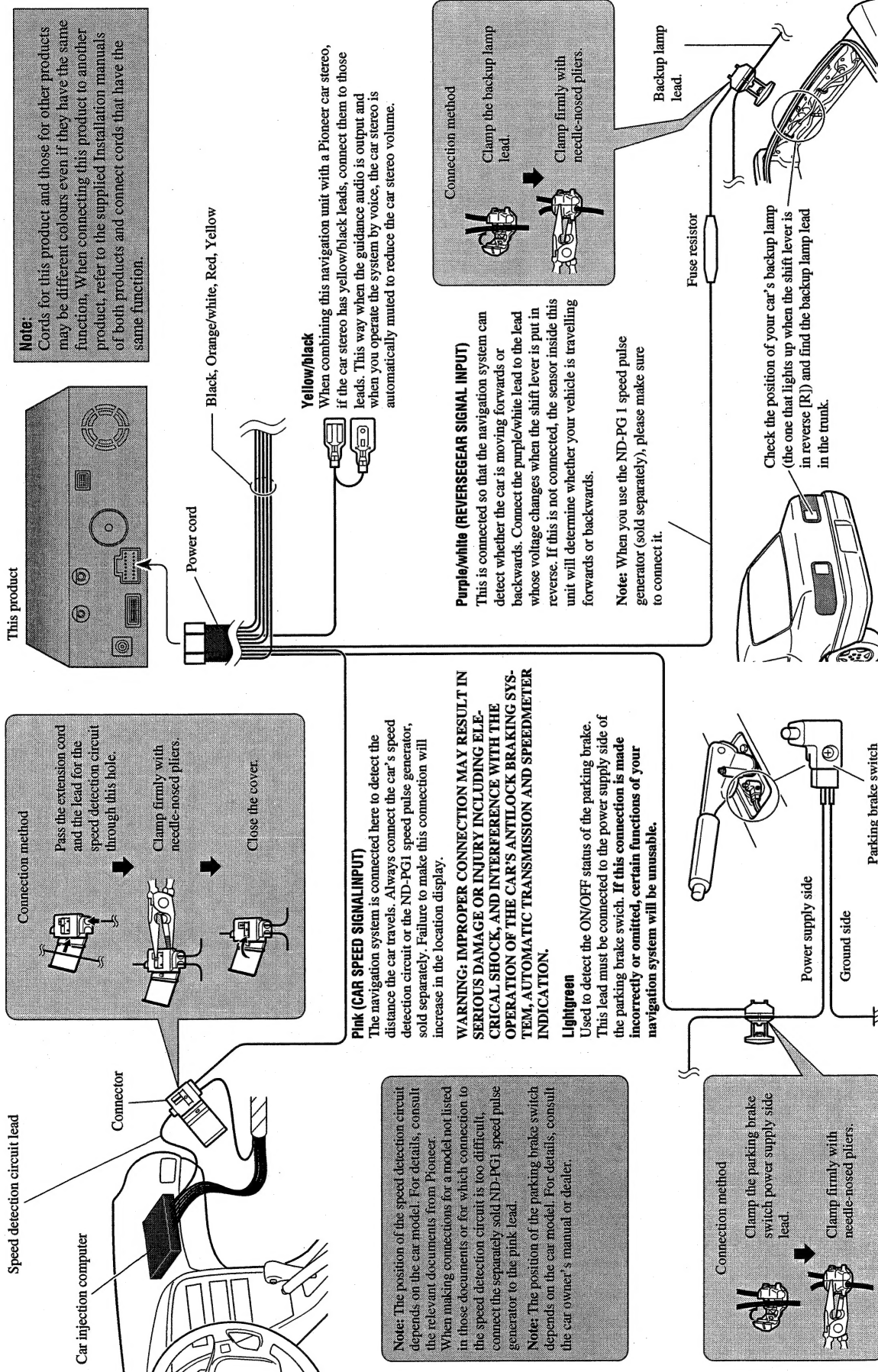
This functions as the BAND button when using each source. It also cancels the menu you are viewing, and returns you to the original display.

## Connecting the System

Use this jack when connecting the CUE unit for obtaining traffic information.









## 8.2 SPECIFICATIONS

### ● AVIC-90DVD/UC

#### **Specifications**

---

##### **Main unit**

(GPS receiver)

System	: L1, C/Acode GPS SPS (Standard Positioning Service)
Reception system	: 8-channel multi-channel reception system
Reception frequency	: 1,575.42 MHz
Sensitivity	: -130 dbm
Frequency	: Approx. once a second

##### **(Common)**

Max. output impedance	: 1Vp-p, 75Ω
Maximum current consumption	: 2 A
Power source	: DC 14.4V (10.8 - 15.1V allowed)
Ground type	: Negative type
Buckup current	: 4mA or less

##### **GPS antenna**

Antenna	: Micro strip flat antenna/right-handed helical polarization
Antenna cable	: 5.0 m (16ft. 5 in)

##### **Dimensions**

Main unit	: 178(W) × 50(H) × 178(D) mm (7 × 2 × 7 in)
GPS antenna	: 34(W) × 13(H) × 36(D) mm (1-3/4 × 1-3/4 × 1-3/8 in)
Remote controller	: 38(W) × 146(H) × 30(D) mm (1-1/2 × 5-3/4 × 1-1/8 in)

##### **Weight**

Main unit	: 1.5 kg (3.3 lbs.)
GPS aerial	: 105g (0.23 lbs.)
Remote controller	: 87g (incl. battery) (0.2 lbs.)

##### **DVD mechanism part**

REGION NUMBER	: 1
USABLE DISCS	: DVD-VIDEO/CD
SIGNAL FORMAT	
Sampling frequency	: 44.1/48/96KHz
Number of quantization bits	: 16/20/24 bit; linear
FREQUENCY RESPONSE	: 5~44,000Hz (± 1dB)
S/N RATIO	: 96dB (IEC-A NETWORK) 97dB (IEC-A NETWORK): CD
DINAMIC RANGE	: 96dB (1kHz) 95dB (1kHz): CD
DISTORTION	: 0.008% (1kHz)
OUTPUT LEVEL	VIDEO : 1Vp-p/75Ω AUDIO : 1mV (1kHz,0dB)
NUMBER OF CHANNELS	: 2 (STEREO)

##### **Note:**

- The specifications and design are subject to change without prior notice. The product purchased may differ in detail from illustrations in this manual.

## AVIC-90DVD,9DVDII

### ● AVIC-9DVDII/EW

### Specifications

---

#### Main unit

(GPS receiver)

System	: L1, C/Acode GPS SPS (Standard Positioning Service)
Reception system	: 8-channel multi-channel reception system
Reception frequency	: 1,575.42 MHz
Sensitivity	: -130 dbm
Position update frequency	: Approx. once per second

#### (Common)

Max. output impedance	: 1Vp-p, 75Ω
Maximum current consumption	: 2 A
Power source	: DC 14.4V (10.8 - 15.1V allowed)
Ground type	: Negative type
Buckup current	: 4mA or less

#### GPS aerial

Aerial	: Micro strip flat antenna/right-handed helical polarization
Aerial cable	: 5.0 m

#### Dimensions

Main unit	: 178(W) × 50(H) × 178(D) mm
GPS aerial	: 46(W) × 46(H) × 13(D) mm
Remote control	: 38(W) × 146(H) × 30(D) mm

#### Weight

Main unit	: 1.5 kg
GPS aerial	: 130g
Remote control	: 80g (incl. battery)

#### DVD mechanism part

REGION NUMBER	: 2
USABLE DISCS	: DVD-VIDEO/CD
SIGNAL FORMAT	
Sampling frequency	: 44.1/48/96KHz
Number of quantization bits	: 16/20/24 bit; linear
FREQUENCY RESPONSE	: 5~44,000Hz (± 1dB)
S/N RATIO	: 96dB (IEC-A NETWORK) 97dB (IEC-A NETWORK): CD
DINAMIC RANGE	: 96dB (1kHz) 95dB (1kHz): CD
DISTORTION	: 0.008% (1kHz)
OUTPUT LEVEL	VIDEO : 1Vp-p/75Ω AUDIO : 1mV (1kHz,0dB)
NUMBER OF CHANNELS	: 2 (STEREO)

#### Note:

- The specifications and design are subject to change without prior notice. The product purchased may differ in detail from illustrations in this manual.